

SHARP®

ELECTRONIC CASH REGISTER

MODEL

ER-3100

INSTRUCTION MANUAL



If undue force is applied to the draw the cash register will become unstable.

This apparatus complies with requirements of BS 800 and EEC directive 82/499/EEC.

Dieses Gerät stimmt mit den Bedingungen der EG-Richtlinien 82/499/EWG überein.

Cet appareil répond aux spécifications de la directive CEE 82/499/CEE.

Dit apparaat voldoet aan de vereiste EEG-reglementen 82/499/EEG.

Apparatet opfylder kravene i EF direktivet 82/499/EF.

Questo apparecchio è stato prodotto in conformità alle direttive CEE 82/499/CEE.

Αυτή η συσκευή τηρεί τις προδιαγραφές της EEC ντιρεκτίβα 82/499/EEC.

Este aparelho responde às especificações da directiva 82/499/CEE.

Este aparato cumple las especificaciones de la directriz de la CEE 82/499/CEE.

CAUTION:

For a complete electrical disconnection pull out the mains plug.

VORSICHT:

Zur vollständigen elektrischen Trennung vom Netz, den Netzstecker ziehen.

ATTENTION:

Pour obtenir une mise hors-circuit totale, débrancher la prise de courant secteur.

AVISO:

Para una desconexión eléctrica completa, desenchufar el enchufe de tomacorriente.

VARNING:

För att helt koppla från strömmen, dra ut stickproppen.

INTRODUCTION

Thank you very much for your purchase of the SHARP Electronic Cash Register, Model ER-3100.

Please read this Manual carefully before operating your machine in order to gain a full understanding of its functions and performance.

Please keep this Manual for further reference. It will help you, if you encounter any operational problems.

IMPORTANT

- **Install your ER-3100 in a location that is not subject to direct radiation, unusual temperature changes, high humidity or exposed to water sources.**
Installation in such locations could cause damage to the cabinet and the electrical components.
- **The register should not be operated by an individual with wet hands.**
The water could seep into the interior of the ER-3100 and cause component failure.
- **When cleaning your register, use a dry, soft cloth. Never use volatile liquid, such as benzine and thinner.**
The use of such chemicals will lead to discoloration or deterioration of the cabinet.
- **The ER-3100 register plugs into any standard wall outlet (local voltage $\pm 10\%$ AC).**
Other electrical devices on the same electrical circuit could cause the ER-3100 to malfunction.
- **If the register malfunctions, call your local dealer for service — Do not try to repair the register yourself.**

PRECAUTION

This Electronic Cash Register has a built-in memory protection circuit which is operated by rechargeable batteries.

As you know, all batteries will, in time, dissipate their charge even if not used. Therefore to insure an adequate initial charge in the protection circuit, and to prevent any possible loss of memory upon installation, it is recommended that each unit be allowed to recharge for a period of 24 to 48 hours prior to use by the customer.

In order to charge the batteries, the machine must be plugged in and left on in the "REGISTER MODE". This recharging precaution can prevent unnecessary initial service calls.

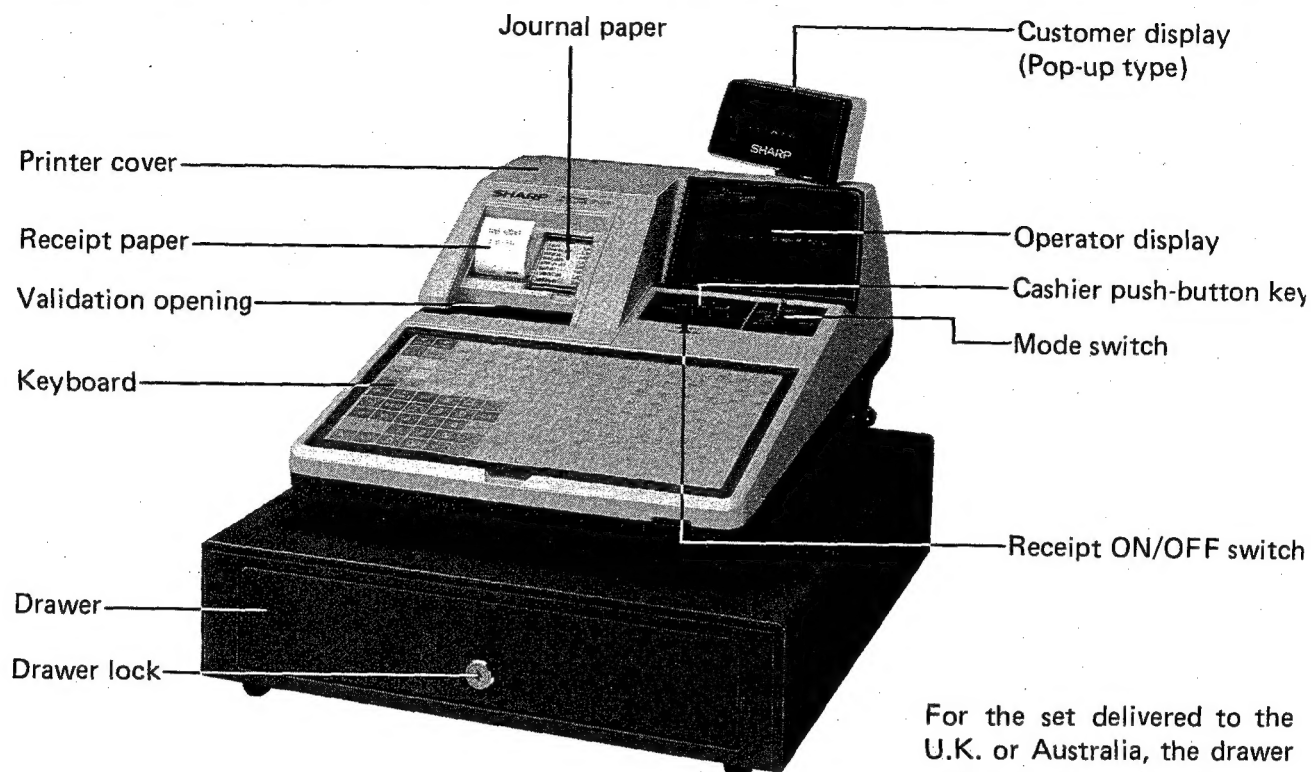
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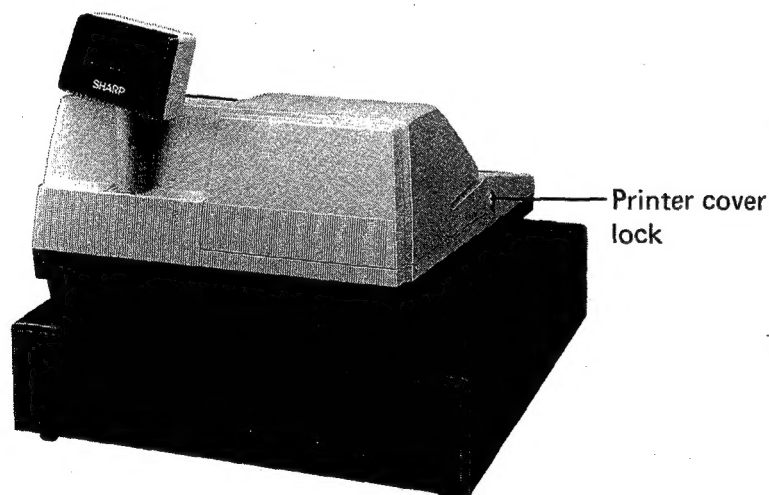
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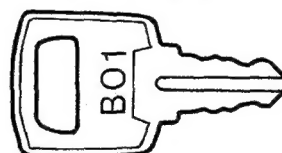
PHYSICAL CHARACTERISTICS OF THE ER-3100 REGISTER



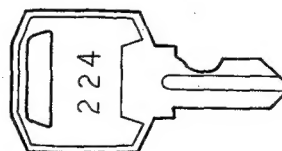
For the set delivered to the U.K. or Australia, the drawer lock is positioned at the right side of the drawer box viewed from the front of the set.



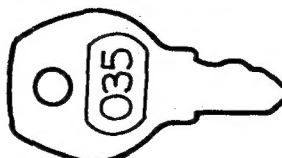
■ Drawer lock key



■ Printer cover lock key



■ Drawer open key for the U.K. or Australia model

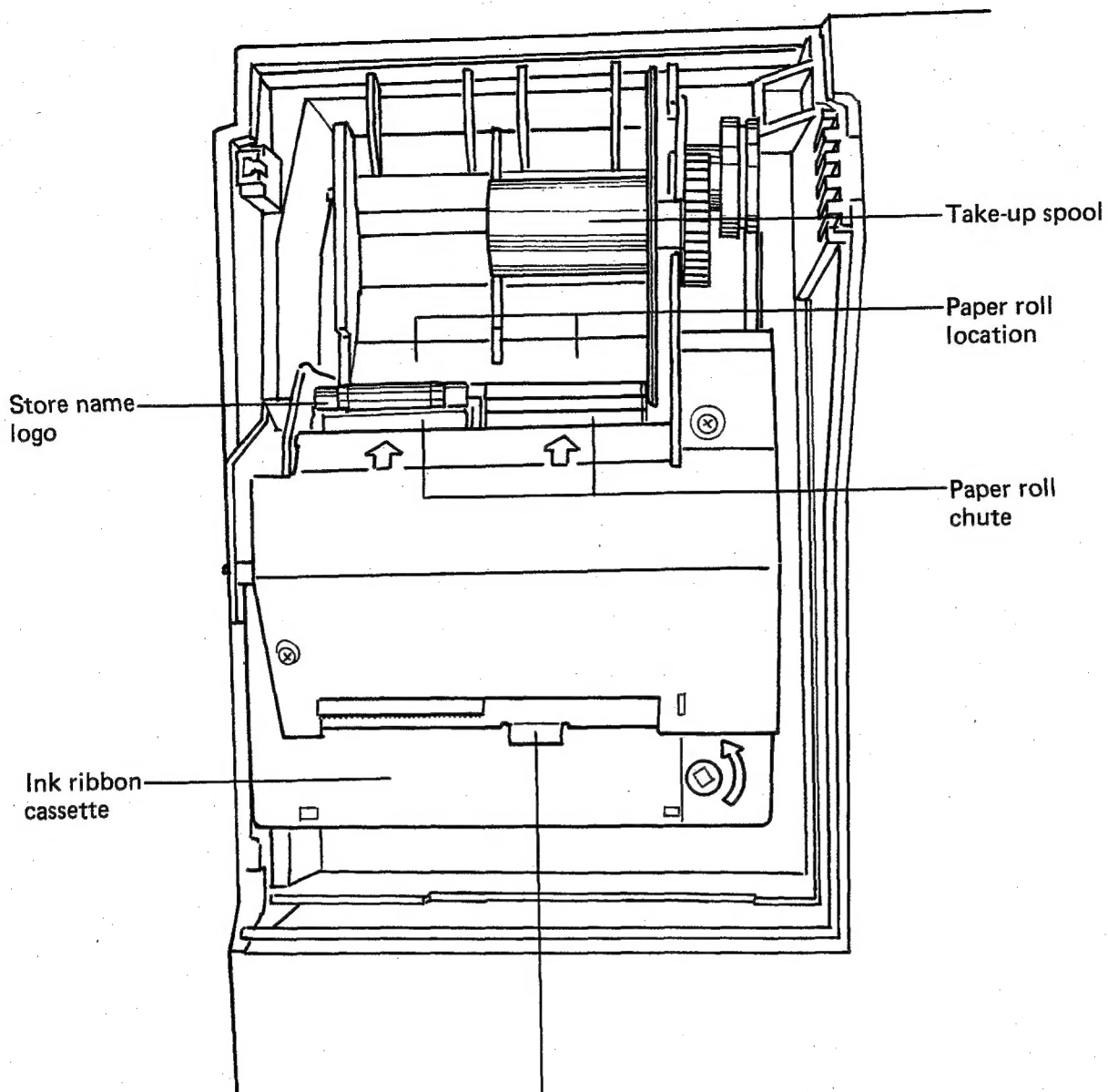


■ Drawer lock

Lock: Turn 180 degrees counterclockwise
Unlock: Turn 180 degrees clockwise

■ Printer cover lock

Lock: Turn 90 degrees counterclockwise.
Unlock: Turn 90 degrees clockwise.



Paper roll release lever

Used to load or unload the machine with paper roll (receipt and journal paper). Keep the lever down to take in or out the paper roll.

Note:

Do not attempt to take in or out the paper roll with this lever at the up position. This may result in trouble.



















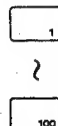













KEYBOARD LAYOUT AND SWITCH AND KEY DESCRIPTIONS

KEYBOARD LAYOUT

Department keys						Direct Price look-up (Menu) keys									
↑ RECEIPT	↑ JOURNAL	5	10	15	20	10	20	30	40	50	60	70	80	90	100
VP	RCPT	4	9	14	19	9	19	29	39	49	59	69	79	89	99
		3	8	13	18	8	18	28	38	48	58	68	78	88	98
EX		2	7	12	17	7	17	27	37	47	57	67	77	87	97
NS	LEVEL SHIFT	1	6	11	16	6	16	26	36	46	56	66	76	86	96
RA	VAT SHIFT	VAT	⊗	CL	PLU	5	15	25	35	45	55	65	75	85	95
PO	GUEST	7	8	9	CR	4	14	24	34	44	54	64	74	84	94
#	⊖	4	5	6	CH	3	13	23	33	43	53	63	73	83	93
%1	%2	1	2	3	FM/ST	2	12	22	32	42	52	62	72	82	92
RF	∞	0	00	•	TL	1	11	21	31	41	51	61	71	81	91

Note 1): The above keyboard layout is standard. The machine has been shipped with the standard keyboard layout sheet attached.

Note 2): All the keys but the receipt paper feed and journal paper feed keys can be changed in their positions. If you want to change the layout, however, contact your dealer.

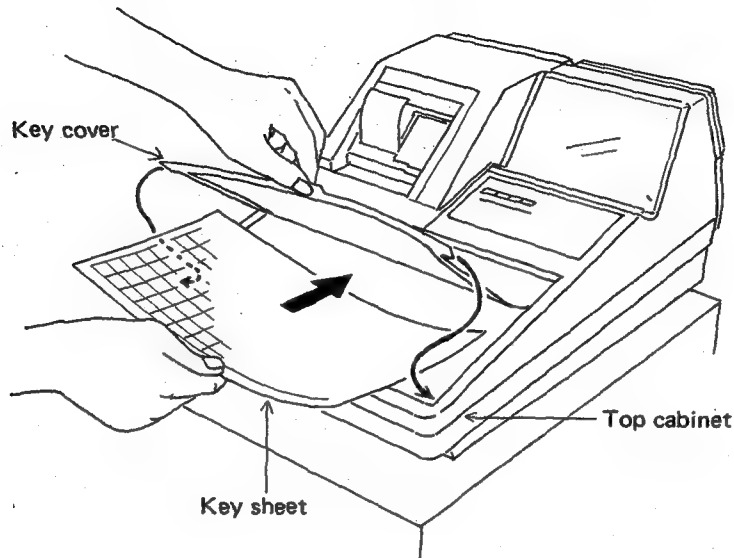
	} Numeric keys		Value added tax shift key
			Guest check copy key
			Non add key
	Decimal point key		Discount key
	Multiplication key		} Percent 1 and 2 keys
	Clear key		
	} Department keys		Refund key
			Void key
	Price look-up key		Credit key
	Direct price look-up (Menu) keys		Cheque key
	Value added tax key		Time display/Sub-total key
	Currency conversion key		Total/Amount tendered key
	No sale key		Validation print key
	Level shift key		Receipt print key
	Received-on-account key		Receipt paper feed key
	Paid-out key		Journal paper feed key

Attaching of the key sheet

The ER-3100 packing carton contains three types of key sheet: the standard keyboard layout, the blank key sheet, and that for programming.

You can write or type captions on the blank key sheet.

Insert the key sheet between the key cover and the top cabinet from the front as illustrated below.



The standard key sheet can be replaced with either of the other two types.

Note 1) Do not pull the key cover too tightly. The cover may be broken.

Note 2) Replace the key sheet with new one if by chance it gets wet. Too long use of a wet key sheet may result in a machine trouble.

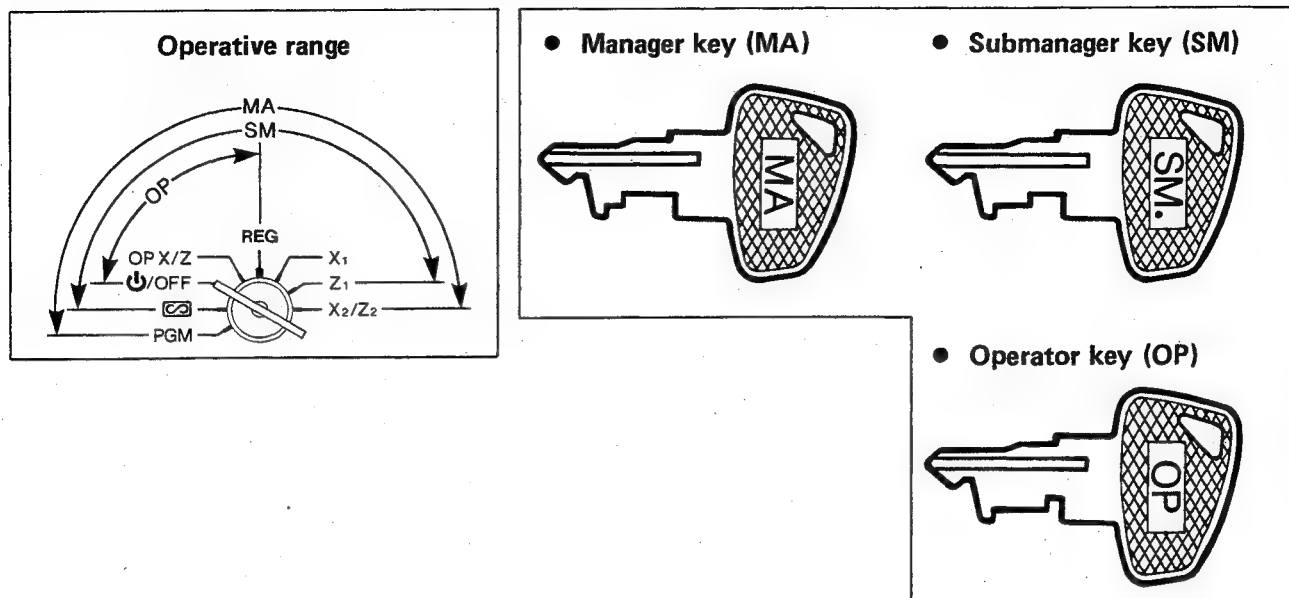
Note 3) Be sure to use the SHARP-specified key sheets. Too thick or hard sheets can make you feel heavy on key operation, or worse, keying-in might be impossible.

Note 4) Spread the key sheet properly under the key cover, without any fold or wrinkle, to ensure easy key-in operation.

Note 5) If you require the key sheet, please consult your dealer.

1. Mode switch and mode keys

The mode switch can be operated by inserting one of the three supplied mode keys – manager (MA), submanager (SM), and operator (OP) keys. The keys can be inserted or removed only when they are in the REG or Φ /OFF position.



The mode switch has these settings:

Φ /OFF : For switching off the display.

OP X/Z : Permits reading and resetting of sales total by cashier.

REG : Permits various entries.

X1 : Allows reading of daily sales total.

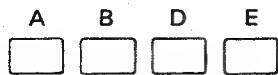
Z1 : Allows resetting of daily sales total.

X2/Z2 : Allows reading and resetting of weekly or monthly sales total.

PGM : Allows programming essential to entries.

 : Allows cancellation after the finish of a transaction.

2. Cashier push-button keys A, B, D, and E



These keys serve to identify the operators of the register.

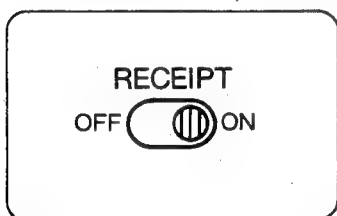
Depress any one of these four keys.

The register prints the symbol that corresponds to the depressed cashier key. (The register prints the symbol "A" both on the receipt and on the journal when operated with the cashier key A.)

Note:

The register won't operate unless a cashier key is down.

3. Receipt ON-OFF switch

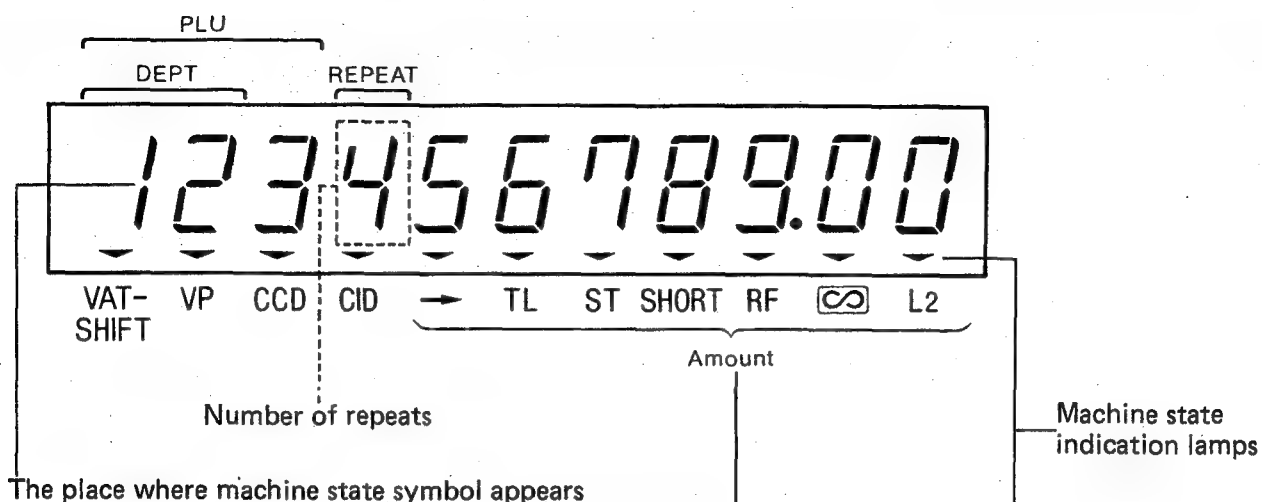


This switch permits or prohibits receipt printing. To permit printing on the journal alone without receipt, slide the switch to the OFF position and to permit printing on both the journal and the receipt, slide it to the ON position.

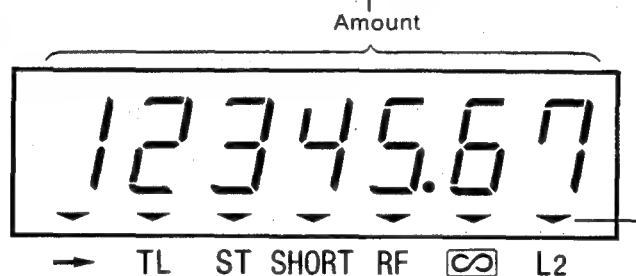
Note: Your register will print receipts regardless of the position of this switch except when the mode switch is in the REG position. This means that the receipt roll must be installed even when this switch is kept in the OFF position.

DISPLAYS

1. Operator display



2. Customer display (Pop-up type)



* The number of repeats is displayed from "2" and counted up with each repeat. When you've registered ten times, the display shows "0."

Example: (2 → 3 → 4 9 → 0 → 1 → 2)

● Machine state symbols

- P : Appears in the eleventh place from the right during programming.
- E : Appears in the eleventh place when an error is detected.
- : Appears when an entry is made into a minus department or PLU and (Floating) when a discount, reduction, or refund entry is made or corrected.

● **Machine state indicator lamps**

- L2** : This lamp lights up when the **LEVEL SHIFT** key is pressed.
- ∞** : This lamp lights up during operations in the **∞** mode.
- RF** : This lamp lights up when a refund entry is made.
- SHORT** : This lamp lights up when the amount tendered is smaller than the total sale amount.
- ST** : This lamp lights up when a subtotal is displayed.
- TL** : This lamp lights up when a transaction is finalized by pressing the **CH** , **CR** , or **TL** key without any amount tendered entry.
- : This lamp lights up whenever the change due appears in the display or when the total sale amount is negative.
- CID** : This lamp lights up when the cash in drawer exceeds the programmed limit.
- CCD** : This lamp lights up during the entry of compulsory cash/cheque declaration.
- VP** : This lamp lights up when the machine is programmed for compulsive validation printing.
- VAT-SHIFT** : This lamp lights up when the VAT status is shifted.

OVERFLOW ERROR ALARM

The purpose of the overflow error alarm is to alert the operator that the digit capacity of the register has been exceeded. The audible alarm sounds (beep) is accompanied by the "E" symbol in the register display. Any transaction entry is dis-allowed until the error is cleared. To clear the error, press the **CL** key.

Error condition	Action
(1) A number entry greater than 8 digits.	● Clear the entry and enter a valid number.
(2) An entry is made over the preset limit to the number of digits or to the amount entry.	● Clear the entry and make an entry within the existing limit.
(3) Sub-total of one transaction exceeds 7 digits.	● Clear the entry and press the TL , CH or CR key to finish the transaction. The machine prints the amount that had been calculated before the error occurred.
(4) Q'ty x Unit price exceeds 7 digits.	● Clear the entry and re-enter properly.

- If a key is operated by mistake, the error alarm signal sounds briefly. The machine will refuse any further key input at this time, so operate proper keys successively.

HOW TO PROGRAM ALPHANUMERIC CHARACTERS

Use the accompanying programming key sheet to key in numbers, letters and symbols. Using the assigned touch keys, it is easy to program alphabetical letters as well as symbols. For placing the key sheet, refer back to page 9.

- Numerals, letters and symbols are programmable simply by pressing the touch keys.
- Double-size characters can be made by using the (DC) key.

Example: To program the word "SHARP" in double size, do the following key-in.

(DC) S (DC) H (DC) A (DC) R (DC) P

- In this layout there are all the keys required for programming. So you can do every kind of programming on this key sheet.

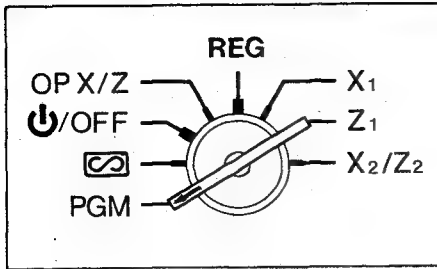
Programming key sheet

↑ RECEIPT	↑ JOURNAL	1	Ft												
Γ	Ψ	2	F	∞	{	}	←	→	◀	▶	↑	↓	_	[]
Δ	Ω	3	T	∞	|	||	..	'	‘	<	>	^	¿	=	+
Θ	1/2	4	1/2	”	@	Æ	Ø	Å	Ñ	Ç	Û	Pt	£	?	
Λ			(DC)	i	!	“	§	\$	%	¢	&	()	*	#
Ξ			⊗	CL	1	2	3	4	5	6	7	8	9	0	B
π		7	8	9	Q	W	E	R	T	Y	U	I	O	P	U
Σ		4	5	6	A	S	D	F	G	H	J	K	L	Ö	Ä
τ		1	2	3	TM/ST	Z	X	C	V	B	N	M	;	:	/
Φ		0	00	•	TL		SPACE	SPACE	SPACE	SPACE	SPACE		,	.	—

Note 1) The shaded keys () cannot be used as a character key.

Note 2) The (DC) means double-size character code and this key is used for double-size character programming.

PROGRAMMING

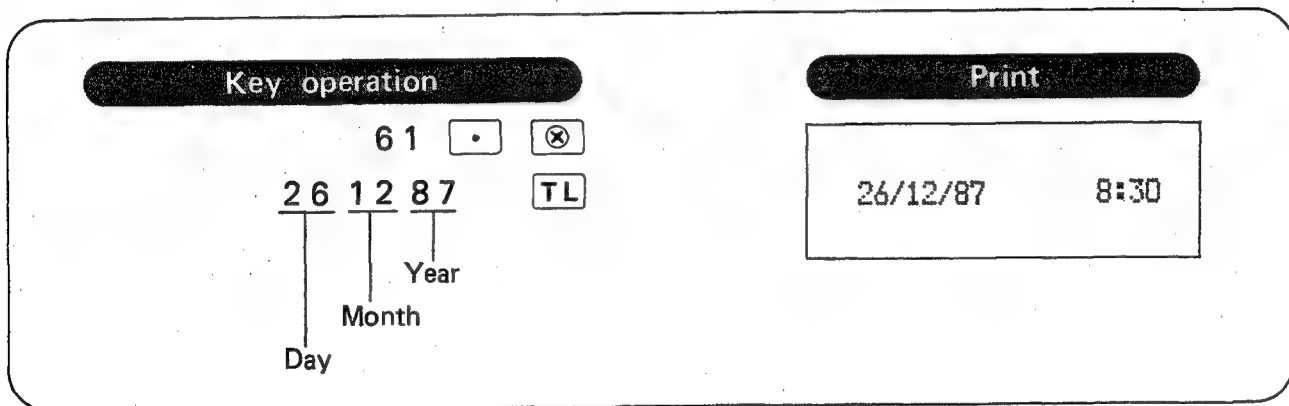


- Turn the mode switch to the PGM position.

1. Setting the date and time

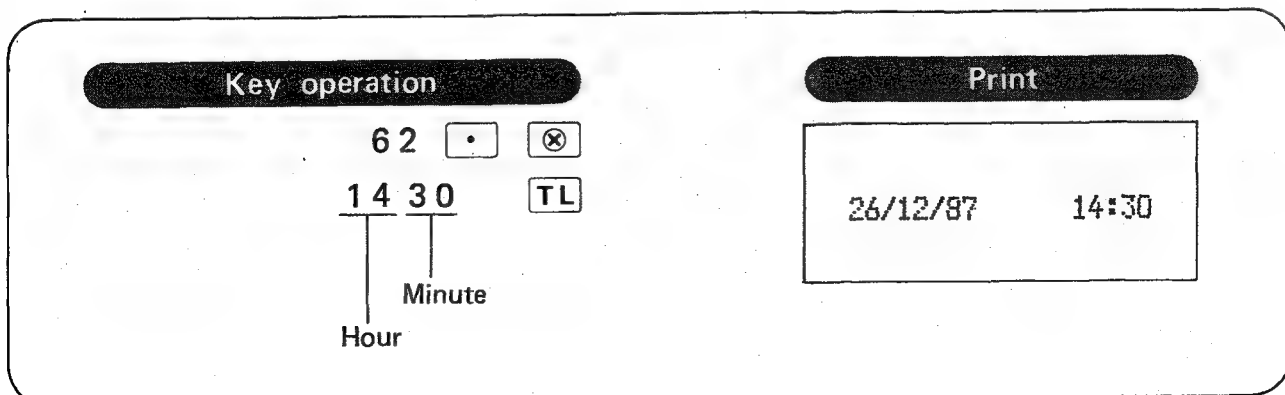
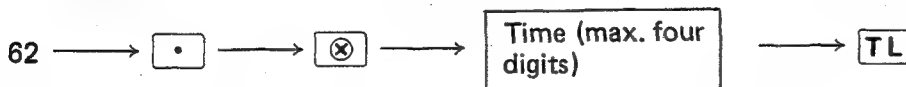
(1) Setting the date

Procedure



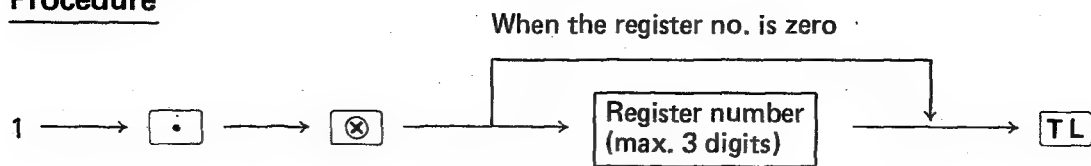
(2) Setting the time

Procedure



2. Setting the register number

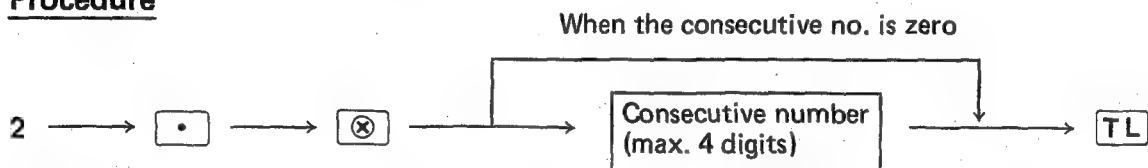
Procedure



Key operation	Print
1 . x	xxx PGM MODE xxx
1 2 3 TL	0001M123 CASHIER A A

3. Setting the consecutive number

Procedure

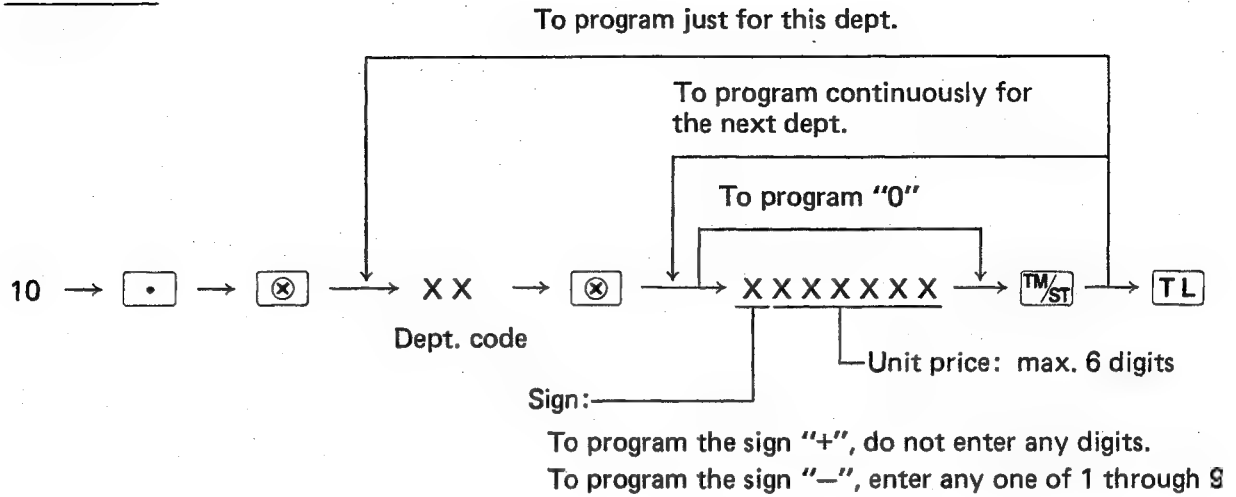


Key operation	Print
Starting from "1001" 2 . x	xxx PGM MODE xxx
1 0 0 0 TL	1000M123 CASHIER A A

4. Programming for departments

(1) Programming signs (+/—) and unit prices

Procedure

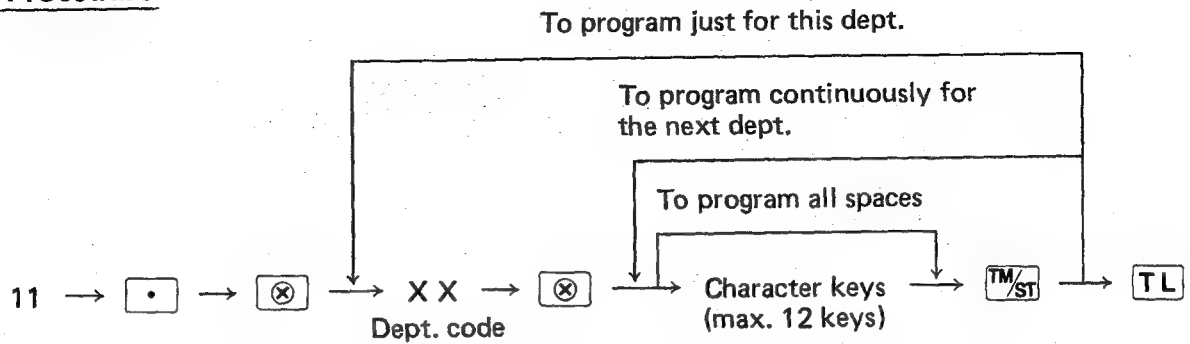


Key operation	Print
10 [.] [⊗]	XXX PGM MODE XXX
1 [⊗] 1250 [TM/ST]	01 12.50
20 [⊗] 1000075 [TM/ST]	01 000107
[TL]	20 -0.75
	20 000107

(2) **Programming alphanumeric characters (max. 12 characters)**

Up to 12 characters can be programmed for each department. Use the programming key sheet for this programming.

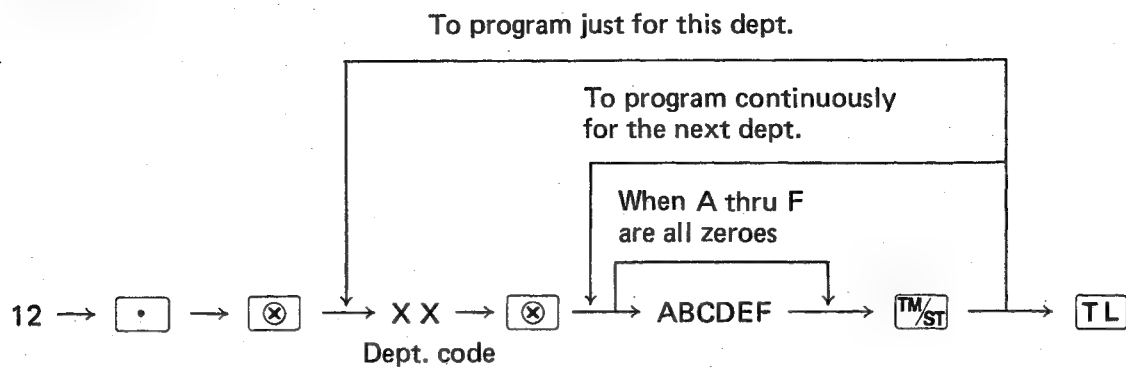
Procedure



Key operation		Print	
11	[.] [X]	XXX FGM MODE XXX	
1 [X] (DC) S T E A K [TM/ST]	[TL]	01 12.50	
		STEAK 000107	

(3) Programming the availability of the entry of programmed unit prices, single item cash sale (SICS), tax status, and digit entry limit.

Procedure



	Item		Entry
A	Tax 3 status	Taxable 3	1
		Non taxable	0
B	Tax 2 status	Taxable 2	1
		Non taxable	0
C	Tax 1 status	Taxable 1	1
		Non taxable	0
D	Entry of programmed unit prices	Available	1
		Not available	0
E	Single item cash sale	Yes	1
		No	0
F	Digit entry limit		0~7

Key operation

12 . ⊗
1 ⊗ 100014 TM/ST
TL

Print

XXX PGM MODE XXX
01 12.50
STEAK 100014

5. Price look-up (PLU) programming

- The ER-3100 is equipped standard with 359 PLUs (or 311 PLUs if the machine has the stock quantity control function). The PLU function can be expanded up to 987 PLUs (or 855 PLUs) when the optional RAM (ER-46PL1) is added on. The number of PLUs and the number of added optional ER-46PL1's are in the following relationship.

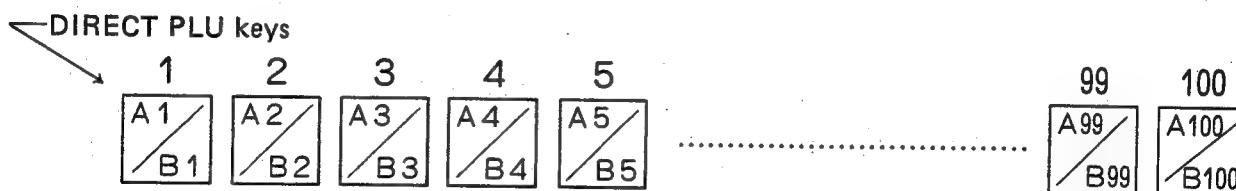
No. of ER-46PL1's	Stock quantity control function	
	Not provided	Provided
—	359 (1–359)	311 (1–311)
1	673 (1–673)	583 (1–583)
2	987 (1–987)	855 (1–855)

- The ER-3100 also has 100 DIRECT PLU keys and a LEVEL SHIFT key. Up to 200 PLUs (PLU Nos. 1 thru 200) can be programmed by pressing the DIRECT PLU keys without having to use PLU numbers.

Note 1) The direct PLU is part of the PLU function. But the "direct" PLU programming is distinguished from the "general" PLU programming because the direct key-in operation is possible regardless of PLU numbers in the former mode.

Note 2) Each direct PLU is programmed the same way as for the general PLU programming.

- Two menu items can be programmed with each direct PLU key. (The two menu items can be picked up with the LEVEL SHIFT key.)
- The DIRECT PLUS keys and the PLU numbers have the following relation. (These PLU numbers are used also in programming the direct PLU.)



A1, A2, A100: Upper (front) menu items

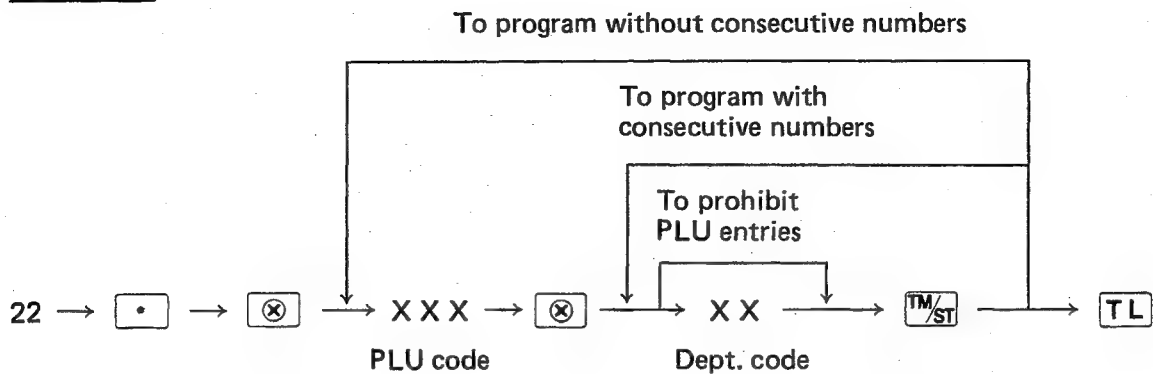
B1, B2, B100: Lower (back) menu items

Menu item	A1	A2	....	A100	B1	B2	....	B100
PLU number	1	2	....	100	101	102	....	200

(1) Programming associate departments

- The sign, tax status, and single-item cash sale function of each PLU depends upon its associated department.

Procedure

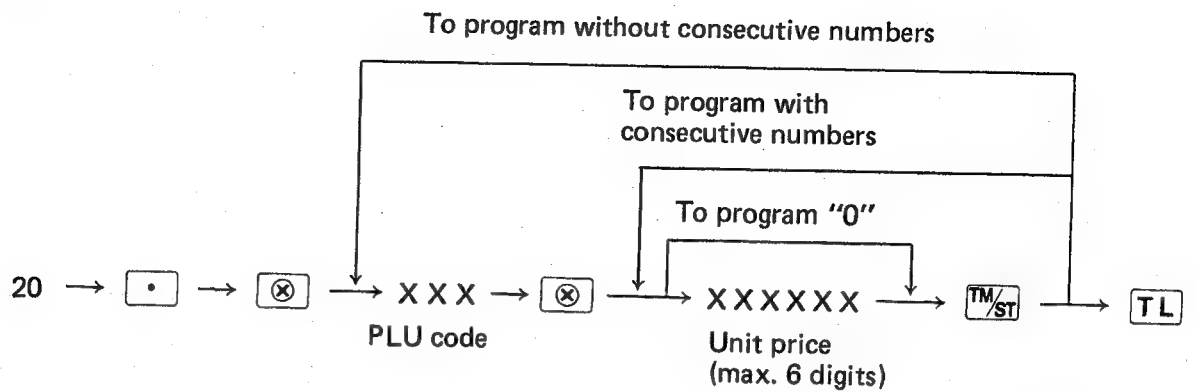


Key operation	Print
22 [.] [⊗]	XXX PGM MODE XXX
1 [⊗]	1#02
2 TM/ST	001PLU 0.01
2 TM/ST	2#02
20 [⊗]	002PLU 0.02
3 TM/ST	20#03
TL	020PLU 0.20

Note: As soon as the programming is completed for one PLU, the next PLU number appears in the display.

(2) Programming unit prices

Procedure

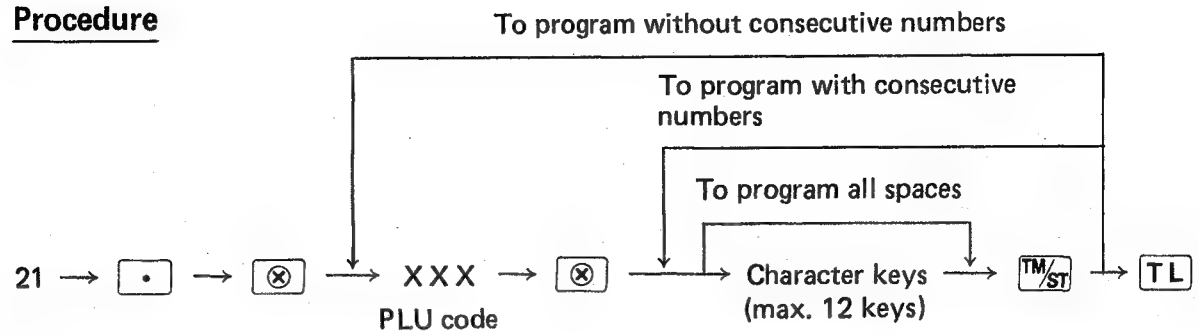


Key operation	Print
20 . ⊗	XXX PGM MODE XXX
1 ⊗	1#02
350 TM/ST	001PLU 3.50
500 TM/ST	2#02
20 ⊗	002PLU 5.00
725 TM/ST	20#03
TL	020PLU 7.25

(3) Programming alphanumeric characters (max. 12 characters)

Up to 12 characters can be programmed for each PLU number. Use the programming key sheet for this programming.

Procedure

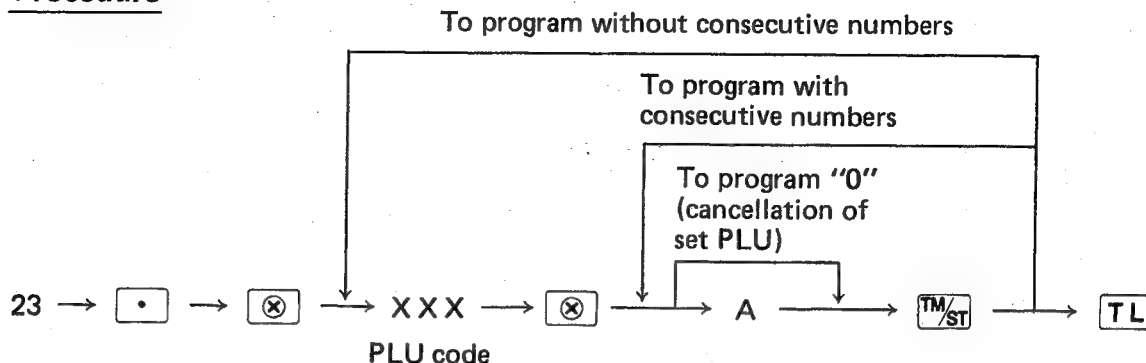


Key operation	Print
21 . ⊗	XXX PGM MODE XXX
1 ⊗	1#02
(DC) B E E R TM/ST	BEER 3.50
TL	

(4) Programming set PLUs

When two or more menu items, consisting of some PLUs, are to be programmed together, set PLUs should be specified. Up to 10 PLUs can be programmed.

Procedure



	Item		Entry
A	Set PLU	Programming	1
		Cancellation	0

Key operation	Print
23 [.] [⊗] 11 [⊗] 1 [TM/ST] [TL]	<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;">XXX PGM MODE XXX 11# 1 SET 011PLU -0.11</div>

Note 1) Programming of set PLUs is carried out the same way as for ordinary PLUs.

Note 2) Set PLU prices can be obtained by automatically summing up the unit prices of individual PLUs which have been programmed.

Note 3) With set PLUs, discounts can be also programmed. When a discount has been preset, the amount, which is determined by deducting the discount from the total of individual PLU prices, is programmed as the set PLU price.

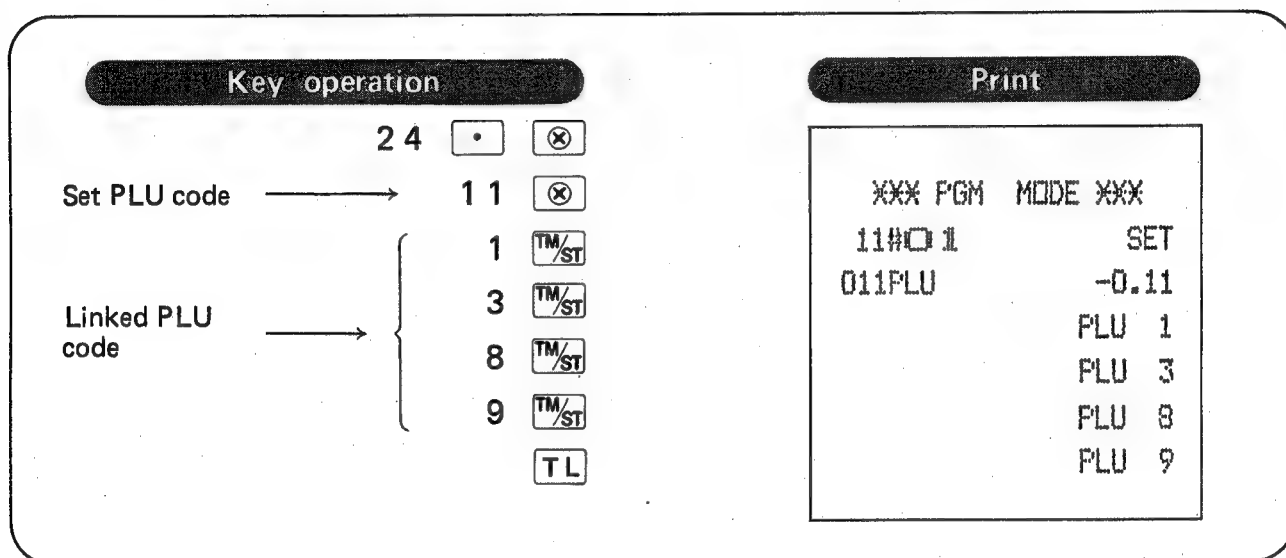
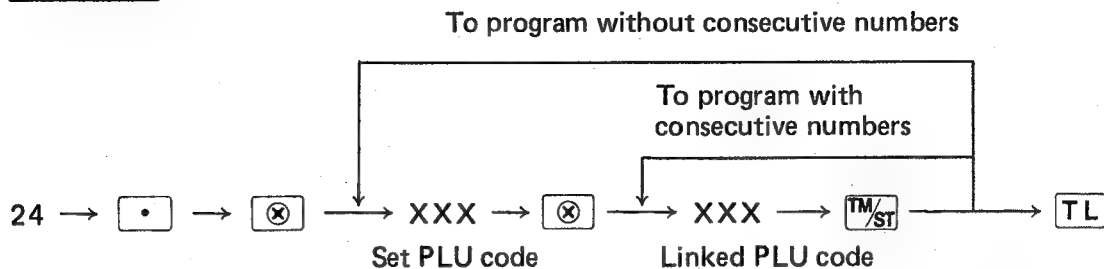
To program a discount of set PLU, refer back to "(2) Programming unit prices" on page 23. Replace the unit price with the discount in the procedural steps. A discount can be programmed up to 6 digits, too.

Note 4) For programming associate departments as well as alphanumeric characters as to set PLUs, take the procedural steps in "(1) Programming associate departments" and "(3) Programming alphanumeric characters," respectively.

(5) Programming linked PLUs for set PLUs

Program individual PLUs to link up with a set PLU. Up to 5 PLUs can be linked to each set PLU.

Procedure



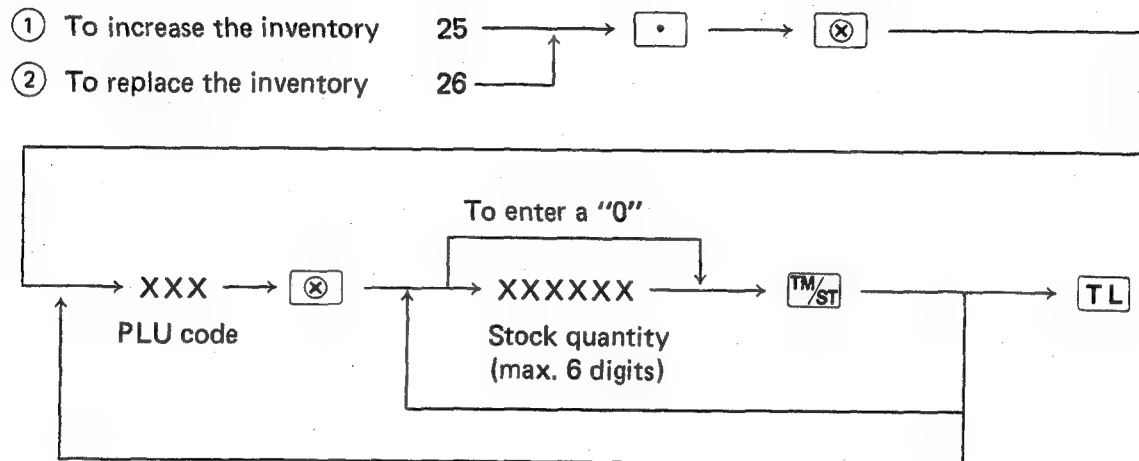
Note: Each PLU number can be programmed in two or more set PLUs.

Example: <u>Set PLU No. 11</u>	<u>Set PLU No. 12</u>	<u>Set PLU no. 13</u>
PLU no. 1	PLU no. 5	PLU no. 8
PLU no. 2	PLU no. 2	PLU no. 2
PLU no. 3	PLU no. 7	PLU no. 10

(6) Programming stock quantity

- This programming is available only on the machine equipped with the stock quantity control function. For details, contact your dealer.
- Once programmed, stock quantities can be automatically updated (increased or decreased) by the stock memory.
- The programming is available in two types; ADD type in which an inventory is added to the programmed level, and OVERRIDE type in which the programmed level is cancelled and a new programming is set up.

Procedure



Key operation

25
 1
 100
 200
 5
 70

Print

```

XXX PGM  MODE XXX
1#02
BEER                3.50
      S              0
      S+            100
      S              100

2#02
002PLU              5.00
      S              0
      S+            200
      S              200

5#01
005PLU              0.05
      S              0
      S+             70
      S              70
  
```

Key operation

26
 3
 50
 100
 7
 85

Print

```

XXX PGM  MODE XXX
3#01
003PLU              0.03
      S              50

4#01
004PLU              0.04
      S              100

7#01
007PLU              0.07
      S              85
  
```

6. LEVEL SHIFT function

- LEVEL SHIFT key (usable/unusable)

The LEVEL SHIFT key can be on standby or not whenever it is needed.

- Standard menu programming (upper/lower menu blocks)

Either the upper (front) and lower (back) menu blocks can be selected as standard.

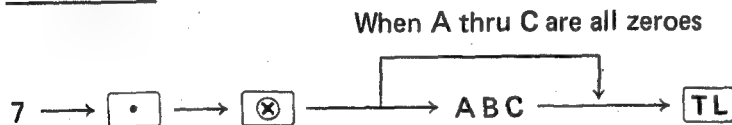
Note) The standard menu block can be programmed simply by pressing the DIRECT PLU key. The other (non-standard) menu block is programmed by pressing the LEVEL SHIFT key first and then the DIRECT PLU key.

- Menu change programming (ONE-SHOT/STAY-DOWN)

(1) ONE-SHOT: The two menu blocks are changed each other only when the LEVEL SHIFT key has been pushed down.

(2) STAY-DOWN: One menu block stays unchanged until the LEVEL SHIFT key is pressed again.

Procedure



	Item		Entry
A	LEVEL SHIFT key use	Usable	0
		Unusable	1
B	Standard menu block	Upper menu	0
		Lower menu	1
C	Menu change programming	ONE-SHOT	0
		STAY-DOWN	1

Key operation

7 . ⊗

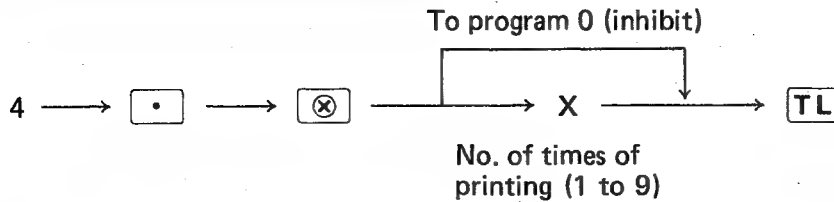
1 TL

Print

XXX FGM MODE XXX

F#07 001

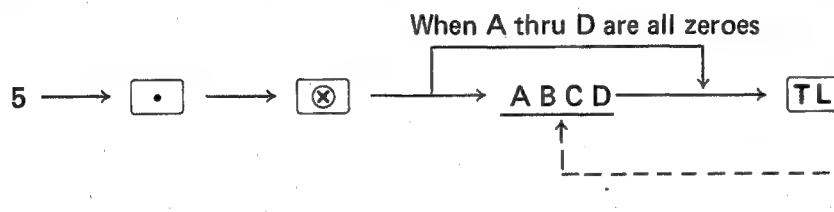
7. Programming the limit to the number of times of validation printing



Key operation	Print
4 . ⊗ 1 TL	<pre> XXX PGM MODE XXX F#04 1 </pre>

8. Programming for report skipping

A full item X/Z report consists of department, transaction, hourly, and cashier reports, and any reports of them may be skipped by block if they are not necessary.



Item			
A	Department report	Skip	1
		Not skip	0
B	Transaction report	Skip	1
		Not skip	0
C	Hourly report	Skip	1
		Not skip	0
D	Clerk report	Skip	1
		Not skip	0

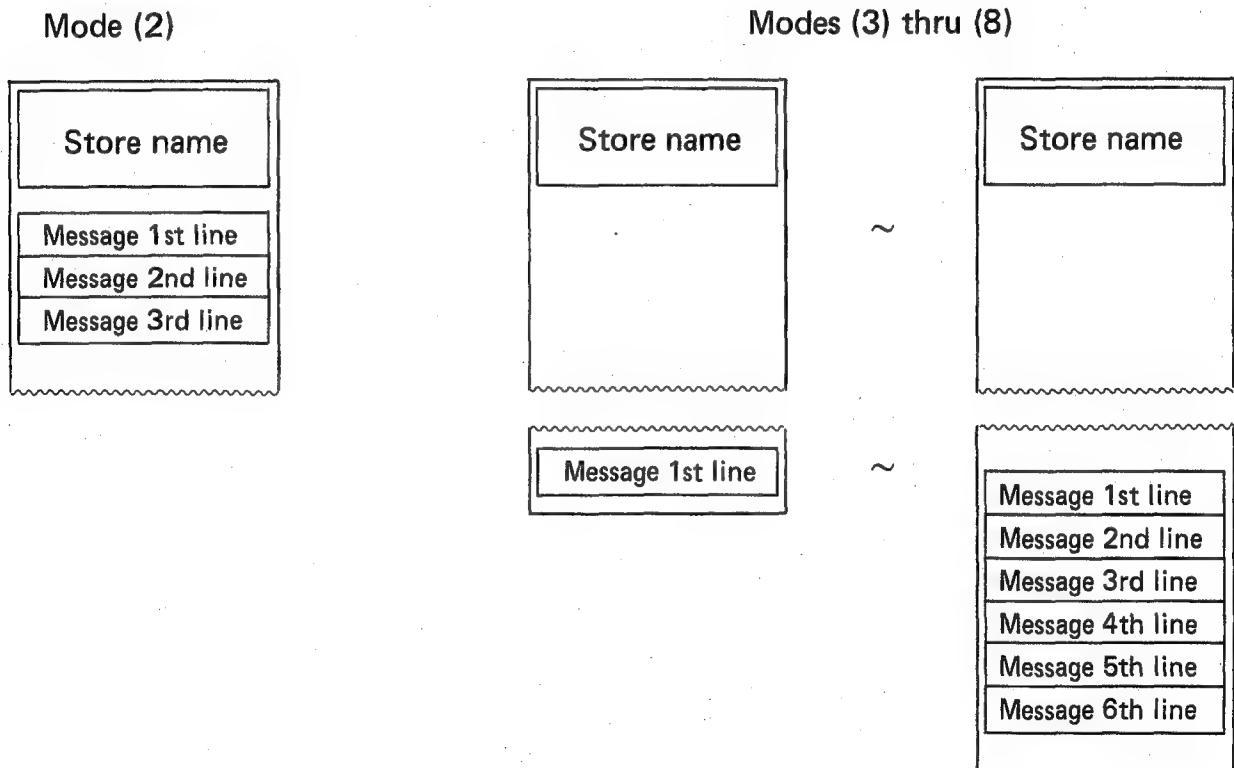
Key operation	Print
5 . ⊗ TL	<pre> XXX PGM MODE XXX F#05 0000 </pre>

9. Programming alphanumeric characters for logo (header and footer) messages (max. 126 characters)

The ER-3100 can print logo messages in the following eight manners. You can select any one of them.

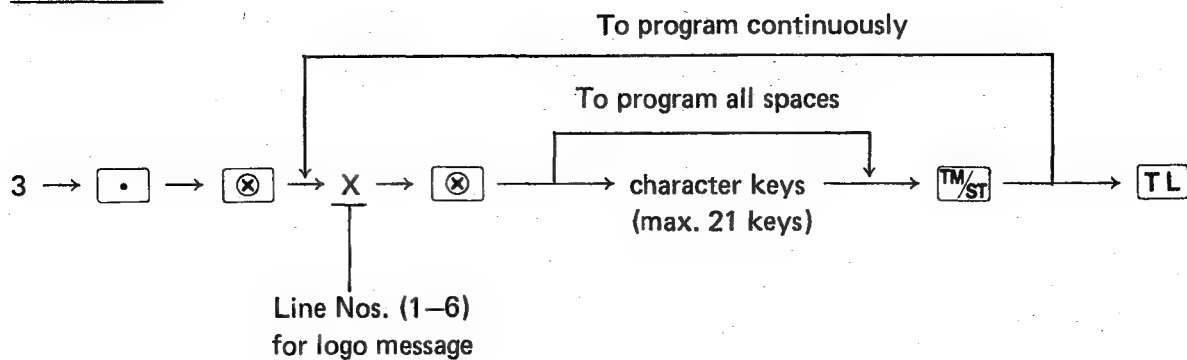
- (1) No logo message printed (store name only)
- (2) 3-line logo message below the store name
- (3) 1-line logo message at the bottom of receipt
- (4) 2-line logo message at the bottom of receipt
- (5) 3-line logo message at the bottom of receipt
- (6) 4-line logo message at the bottom of receipt
- (7) 5-line logo message at the bottom of receipt
- (8) 6-line logo message at the bottom of receipt

Printed positions on the receipt



Note) Up to 21 characters can be programmed per line. For this programming, use the programming key sheet.

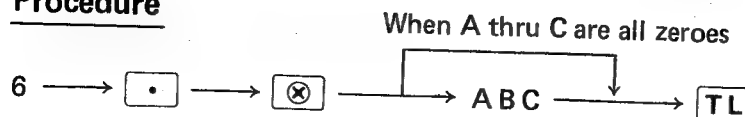
Procedure



Key operation										Print									
3										XXX PGM MODE XXX XXXXXXRESTAURANTXXXXX									
1										XXXXXXRESTAURANTXXXXX XXXXXXSHARPXXXXX									
*	*	*	*	*	*	R													
E	S	T	A	U	R	A													
N	T	*	*	*	*	*													
						TM/ST													
2																			
*	*	*	*	*	*	(DC)													
S	(DC)	H	(DC)	A	(DC)	R													
(DC)	P	*	*	*	*	*													
						TM/ST													
						TL													

10. Programming for journal select

Procedure



	Item		Entry
A	Logo messages for journal	Skip	0
		Not skip	1
B	Time printing*	Skip	0
		Not skip	1
C	Journal select (plus dept/plus PLU skip)	Skip	0
		Not skip	1

*: This programming is valid for both the receipt and the journal.

Key operation

6 . X

1 TL

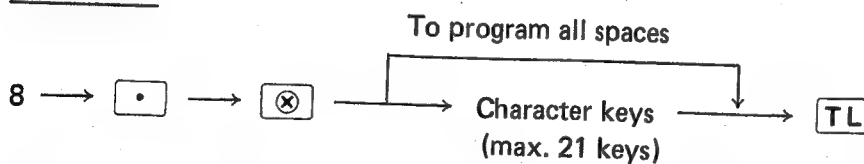
Print

XXX PGM MODE XXX
 F#06 001

11. Programming text characters for free text print (max. 21 characters)

One-line free text can be printed only once just when programming the text characters. Up to 21 characters can be programmed for the free text. Use the programming key sheet for this programming.

Procedure



Key operation

8 . X

(DC) M E D I U M TL

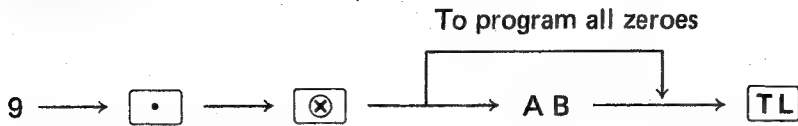
Print

XXX PGM MODE XXX
 F#08
 MEDIUM

12. Programming to select whether to enable or disable each function

By this programming you can decide whether to enable or disable the void (direct/indirect void), and refund functions in the REG modes.

Procedure



	Item		Entry
A	Refund	No	1
		Yes	0
B	Void (direct/indirect)	No	1
		Yes	0

Key operation

9 • ⊗

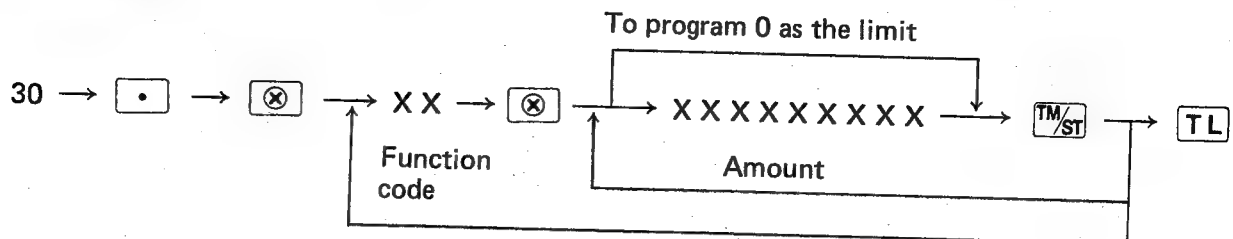
10 TL

Print

XXX PGM MODE XXX
F-#09 10

13. Programming the amount entry limit for functions

Procedure



Function code	Function	Limit
11	ITEM ⊖	Max. 7 digits (99999.99)
12	SBTL ⊖	
15	CH	
16	CR	
13	RA	
14	PO	
24	CID*	Max. 9 digits (99999999.99)

* : The sentinel amount of CID (Cash in drawer) is programmed.
If the programmed sentinel amount of CID is exceeded, the "CID" lamp lights up to tell of that.

The diagram illustrates the sequence of key operations and the resulting printout on a calculator. The calculator is shown with a numeric keypad and function keys. The sequence of operations is as follows:

- Key operation: **30** **.** **(X)**
- Key operation: **15** **(X)**
- Key operation: **99999** **TM/ST**
- Key operation: **24** **(X)**
- Key operation: **100000** **TM/ST**
- Key operation: **TL**

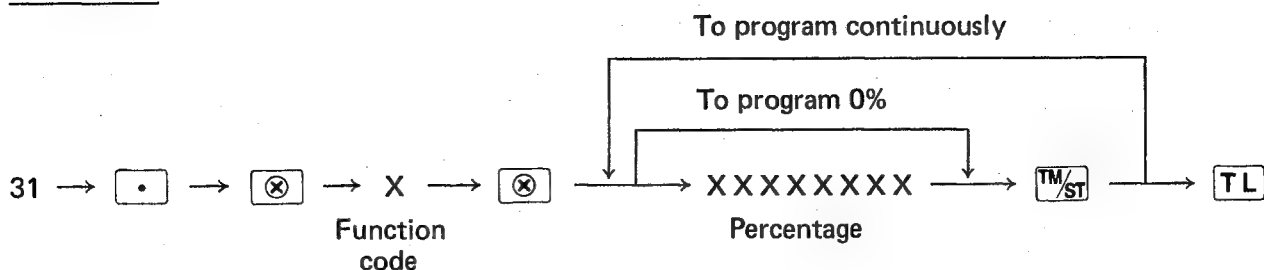
The resulting printout is shown in a box on the right:

```

XXX PGM  MODE XXX
F#15      CH
          999.99
F#24      CAID
          1000.00
  
```

14. Programming the percentage for %1 , %2 , VAT , and EX keys

Procedure



Function	Function code	Remarks
Item %1	1	<div> <div> <div></div> <div>*</div> </div> <div> <div>Max. 4 digits (0.01 ~ 99.99%)</div> </div> </div>
Item %2	2	
SBTL %1	3	
SBTL %2	4	
VAT 1	5	
VAT 2	6	
VAT 3	7	
Conversion 1	8	<div> <div>Max. 8 digits (0.0001 ~ 9999.9999%)</div> </div>
Conversion 2	9	
Conversion 3	10	

*: When you program the percentage for [%1] or [%2] as a negative one, key in one digit before entering the percentage.

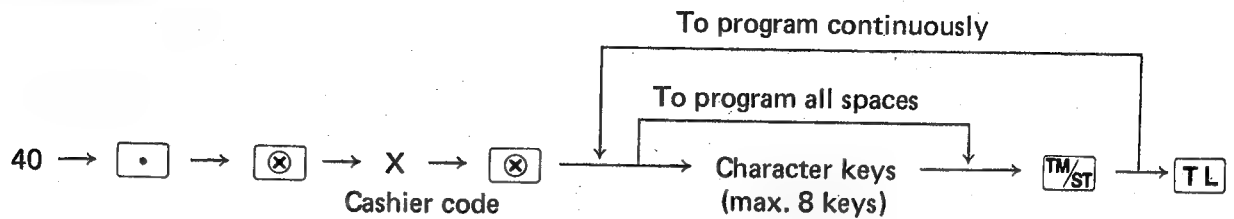
Key operation		Print
3 1	<input type="button" value="."/> <input type="button" value="⊗"/>	<div> XXX PGM MODE XXX F#01 ITEM%1 -10.00% F#05 VAT1 15.00% </div>
1	<input type="button" value="⊗"/>	
11000	<input type="button" value="TM/ST"/>	
5	<input type="button" value="⊗"/>	
1500	<input type="button" value="TM/ST"/>	
	<input type="button" value="TL"/>	

15. Programming for cashiers

(1) Programming cashier's name

You may program a maximum of eight characters for each of 4 cashiers. Use the programming key sheet for this programming.

Procedure



Cashier code	Cashier
1	A
2	B
3	D
4	E

Key operation

40 . X

1 X

(DC) P E T E R TM/ST

TL

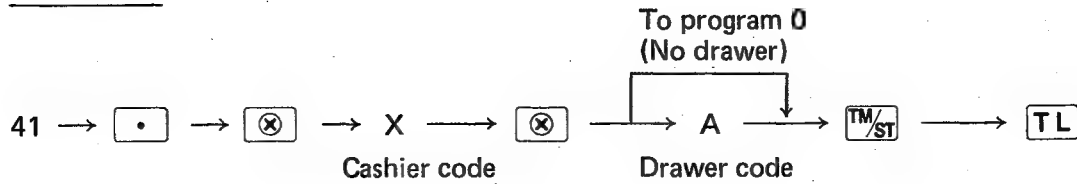
Print

XXX FGM MODE XXX

CH01 00 PETER 1

(2) Assigning cashier's drawer

Procedure



Cashier code	Cashier
1	A
2	B
3	D
4	E

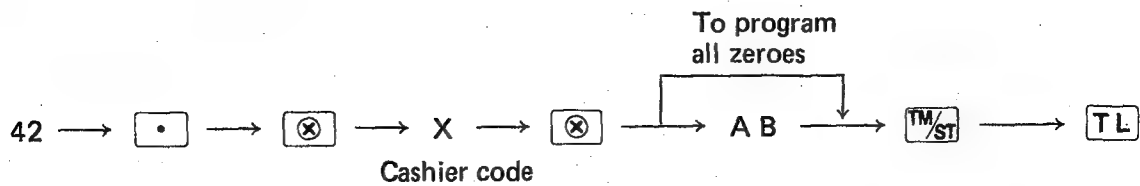
Drawer	Drawer code
No drawer	0
Standard drawer	1
Remote drawer	2

Note: The remote drawer is an option.

Key operation	Print
4 1 [•] [⊗]	<div style="border: 1px solid black; padding: 10px; margin: 0 auto; width: 80%;"> <p>*** PGM MODE ***</p> <p>C#01 00 PETER 1</p> </div>
1 [⊗]	
1 [TM/ST]	
[TL]	

16. Programming the VAT shift and guest check copy for cashiers

Procedure



Cashier code	Cashier
1	A
2	B
3	D
4	E

	Item		Entry
A	VAT shift	Yes	1
		No	0
B	Guest check copy	Disallowed	1
		Allowed	0

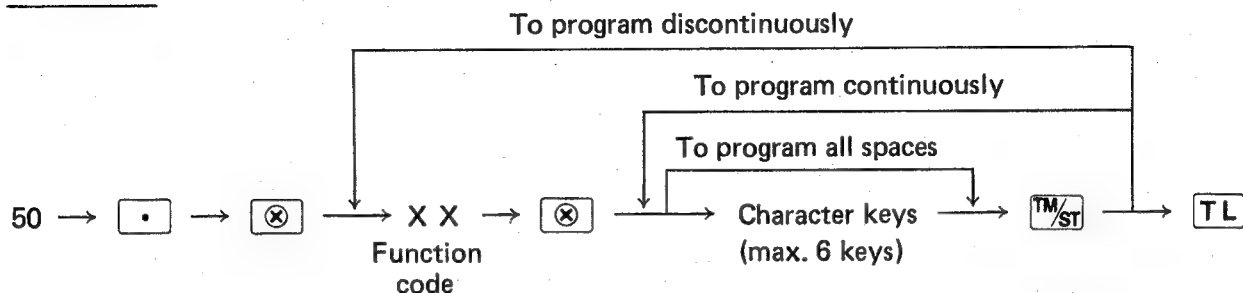
Key operation	Print
<div style="display: flex; justify-content: space-between;"> 4 2 <div> <div>[.]</div> <div>[⊗]</div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> 1 <div> <div>[⊗]</div> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> 1 0 <div> <div>[TM/ST]</div> <div>[TL]</div> </div> </div>	<div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <pre> XXX PGM MODE XXX CH01 10 PETER 1 </pre> </div>

17. Programming alphanumeric characters for function keys

The standard texts that are printed in entry operations, reading, and resetting are listed below. You can change these texts as necessary by this programming.

Use the programming key sheet for this programming.

Procedure



Function code	Standard text	Function code	Standard text	Function code	Standard text
1	ITEM %1	28	TTL	48*2	PLU
2	ITEM %2	29	SUBTL	49	PLU/DP
3	ST %1	30	TAXBL 1	50	SETPLU
4	ST %2	31	TAXBL 2	51	DAILY
5	VAT 1	32	TAXBL 3	52	STOCK
6	VAT 2	33	VATSFT	53*1	CCD
7	VAT 3	34	GRS TL	54*1	TLIS
8	CONV. 1	35	—DPT	55*1	DIFFER
9	CONV. 2	36	NET	56	TAXDEL
10	CONV. 3	37	REFUND	57	GUEST
11	ITEM—	38	∞	58	RA/PO
12	ST—	39	∞ MODE	59	CA/CH
13	RA	40	VP	60	CR
14	PO	41	G. C. CT	61	*COPY*
15	CH	42	READ		
16	CR	43	RESET		
24	CAID	44	DPT		
25	CACHID	45	TRANS		
26	NS	46	HOURLY		
27	CASH	47	CASHER		

*1: This text may be programmed only when your register has been programmed for "compulsory cash cheque declaration."

*2: The printing is made on PLU reading/resetting report.

Key operation	Print
5 0 . ⊗ 1 5 ⊗ (DC) C H K TM/ST TL	<div style="border: 1px solid black; padding: 10px; margin: 0 auto; width: 80%;"> XXX PGM MODE XXX F#15 CHK </div>

18. Reading stored programs

Your machine allows you to read every program stored in the PGM mode.

(1) Program details and procedures for their reading

Item	Mode switch position	Job code no.	Procedure	Sample printout
(1) Departments	PGM	10	10 → ⊗ → TL	42
(2) PLUs & Direct PLUs	PGM	20	20 → ⊗ → Start PLU no. <div style="margin-left: 40px;"> For individual reading ⊗ → End PLU no. → TL </div>	43
(3) Set PLUs	PGM	23	23 → ⊗ → TL	44
(4) Miscellaneous functions	PGM	1	1 → ⊗ → TL	45
(5) Cashiers	PGM	40	40 → ⊗ → TL	47

(2) Sample printouts

① Reading of programmed items for departments

YOUR RECEIPT

THANK YOU

XXXXXXRESTAURANTXXXXX
XXXXXXSHARFXXXXX

26/12/87 14:50

XXX PGM MODE XXX

Dept. no	01	12.50	Unit price
Item label programmed for dept. 1	STEAK	100014	
	02	0.00	
	02	000007	
	03	0.00	
	03	000007	
	04	0.00	
	04	000007	

16	0.00
16	000007
17	0.00
17	000007
18	0.00
18	000007
19	0.00
19	000007
20	-0.75
20	000107

1027M123 PETER A

20	000107	Digit entry limit
		Single item cash sale
		Entry of programmed unit prices. Available/Not available
		Tax 1 status
		Tax 2 status
		Tax 3 status

② Reading of program items for PLU/Direct PLU

YOUR RECEIPT			
THANK YOU			
XXXXXXRESTAURANTXXXXX			
XXXXXXSHARPXXXXX			
26/12/87		14:52	
PLU no.	XXX PGM	MODE XXX	Dept. no.
	1#02		
Item label programmed for PLU no. 1	BEER	3.50	Unit price
	S	100	
	2#02		
	002PLU	5.00	
	S	200	
	3#01		
	003PLU	0.03	
	S	50	
	4#01		
	004PLU	0.04	
	S	100	
	9#01		
	009PLU	0.09	
	S	0	
	10#01		
	010PLU	0.10	
	S	0	
	11#01	SET	Set PLU message
	011PLU	-0.11	Set PLU discount amount
	S	0	
1028M123 PETER A			

③ Reading of programmed items for set PLU

YOUR RECEIPT			
THANK YOU			
*****RESTAURANT*****			
*****SHARP*****			
26/12/87		14:54	
*** PGM MODE ***			
Set PLU no.	11#01	SET	Dept. no.
Item label	011PLU	-0.11	Set PLU message
programmed for	S	0	Set PLU discount amount
PLU no. 11		PLU 1	} PLU nos.
		PLU 3	
		PLU 8	
		PLU 9	
1029M123 PETER A			

④ Reading of programmed items for miscellaneous function

YOUR RECEIPT		Logo stamp	
THANK YOU			
XXXXXXRESTAURANTXXXXXX		Logo message	
XXXXXXSHARPXXXXXX			
26/12/87 14:56			
XXX PGM MODE XXX			
F#04	1	Number of times of validation printing	
F#05	0000	Report skip	
F#06	011	Journal select	
F#07	001	Level shift function	
F#08	}	Free text print	
MEDIUM			
F#09	10	Function inhibit	
Function code	F#01	ITEM%1	Text
		-10.00%	Percent rate
	F#02	ITEM%2	
		0.00%	
	F#03	ST%1	
		0.00%	
	F#04	ST%2	
		0.00%	
	F#05	VAT1	
		15.00%	VAT rate
	F#06	VAT2	
		0.00%	
	F#07	VAT3	
		0.00%	
	F#08	CONV.1	
		0.0000	Conversion rate
	F#09	CONV.2	
		0.0000	
	F#10	CONV.3	
		0.0000	
	F#11	ITEM-	
		99999.99	Amount limitation

To be continued

F#12	ST- 99999.99
F#13	RA 99999.99
F#14	PD 99999.99
F#15	CHK 999.99
F#16	CR 99999.99
F#24	CAID 1000.00
F#25	CACHID
F#26	NS
F#27	CASH
F#28	TTL
F#29	SUBTL
F#30	TAXBL1
F#31	TAXBL2
F#32	TAXBL3
F#33	VATSFT
F#34	GRS TL
F#35	-DPT
F#36	NET
F#37	REFUND
F#38	W
F#39	MODE
F#40	VP
F#41	G.C.CT
F#42	READ
F#43	RESET
F#44	DPT
F#45	TRANS
F#46	HOURLY
F#47	CASHER
F#48	PLU
F#49	PLU/DP
F#50	SETPLU
F#51	DAILY
F#52	STOCK

F#53	CCD
F#54	TLIS
F#55	DIFFER
F#56	TAXDEL
F#57	GUEST
F#58	RA/PO
F#59	CA/CH
F#60	CR
F#61	XCOPYX

1030M123 PETER A

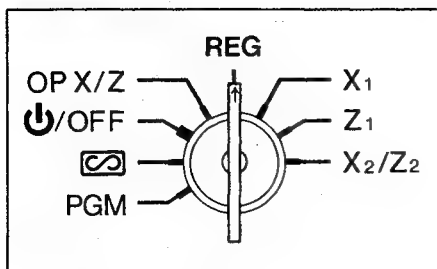
⑤ Reading of programmed items for cashiers

YOUR RECEIPT			
THANK YOU			
*****RESTAURANT*****			
*****SHARP*****			
26/12/87		15:02	
XXX PGM MODE XXX			
Cashier code	C#01	10 PETER	1
VAT shift/ Guest check copy	C#02	00 CASHIER B	1
	C#03	00 CASHIER D	1
	C#04	00 CASHIER E	1
1031M123 PETER A			

Cashier's name

Cashier's drawer

ENTRIES



- Turn the mode switch to the REG position.

1. Item entries

(1) Single item entries

- Entries into departments

Enter a unit price and press a department key. If you use a programmed unit price, press a department key only.

Key operation

1200

Print

01	12.00
02	8.00
CASH	20.00

- PLU entries

Enter a PLU number and press the key.

Key operation

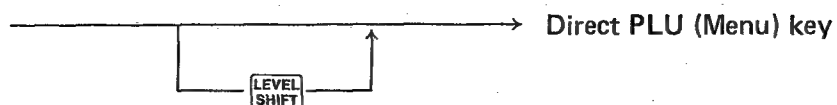
2


Print

002PLU	5.00
CASH	5.00

- **Direct PLU (Menu) entries**

Follow this sequence:



Note: To enter the menu block other than the standard, press the  key first and then the DIRECT PLU key. For details, refer back to the “Level shift function.”

<div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-bottom: 10px; text-align: center;">Key operation</div> <div style="display: flex; justify-content: center; gap: 20px;"> <div style="border: 1px solid black; padding: 5px 10px;">2</div> <div style="border: 1px solid black; padding: 5px 10px;">TL</div> </div>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-bottom: 10px; text-align: center;">Print</div> <div style="border: 1px solid black; padding: 10px; min-height: 100px;"> <div style="display: flex; justify-content: space-between;"> 002PLU 5.00 </div> <div style="display: flex; justify-content: space-between;"> CASH 5.00 </div> </div>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

(2) Repeat entries

You can use this function for entering two or more of the same item.

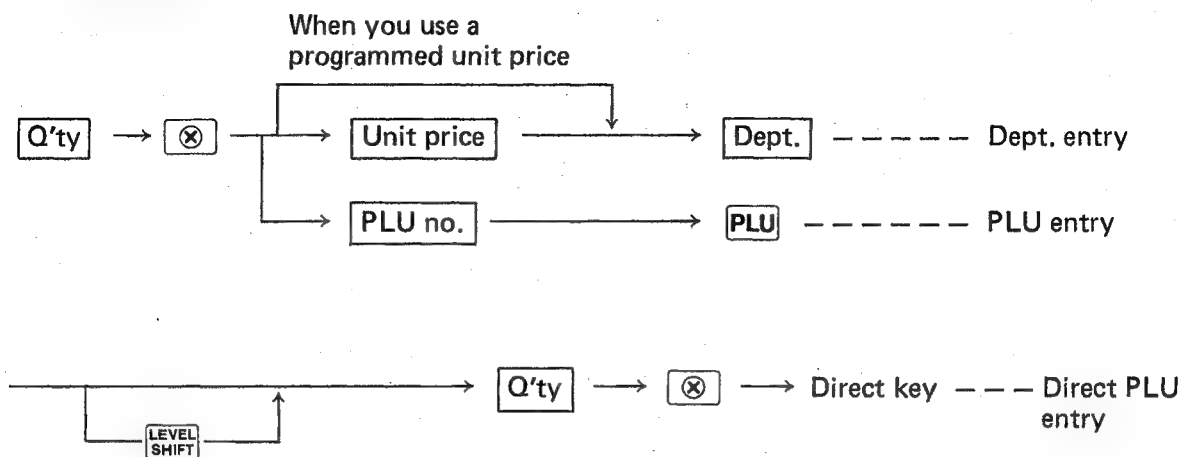
Key operation		Print
Repeated department entry	2 0 0 3	03 2.00
	3	03 2.00
	3	03 2.00
Repeated PLU entry	1 0 PLU	010PLU 7.15
	PLU	010PLU 7.15
	PLU	010PLU 7.15
Repeated Direct PLU entry	2	002PLU 5.00
	2	002PLU 5.00
	2	002PLU 5.00
	TL	CASH 42.45

(3) Multiplication entries

Use this feature when you need to enter two or more of the same item.

This feature helps when you sell a large quantity of items or need to enter quantities that contain decimals.

< Procedure >



- Q'ty: up to six digits (integer + decimal)
- Unit price: Less than a programmed upper limit
- Q'ty x unit price: up to seven digits

Key operation			Print		
Department entry using the multiplication entry function	5	⊗	03	5X	1.65
	1 6 5	3			8.25
PLU entry using the multiplication entry function	1 5	⊗	003PLU	15X	2.10
	3	PLU			31.50
Direct PLU entry using the multiplication entry function	2 5	⊗	002PLU	25X	5.00
		2			125.00
		TL		CASH	164.75

(4) Single item cash sale (SICS) entries

- This function is useful when a sale is for only one item and is for cash; such as a pack of cigarettes. This function is applicable only to those departments that have been set for SICS or to their associated PLUs or Direct PLU.
- The transaction is finalized and the drawer opens as soon as you press the department key.

Key operation		Print				
	2800					
For finishing the transaction	→ 2					
		<table border="1"><tr><td>02</td><td>28.00</td></tr><tr><td>CASH</td><td>28.00</td></tr></table>	02	28.00	CASH	28.00
02	28.00					
CASH	28.00					

Note: If a ring-up to a department or PLU/Direct PLU set for SICS follows the ones to departments or PLUs/Direct PLU not set for SICS, it does not finalize and results in a normal sale.

2. Display of subtotals

Press the TM/ST key at any point during a transaction. Then the subtotal will appear in the display and the "ST" lamp will light up.

Key operation		Print								
1000	1									
2000	2									
3000	3									
	TM/ST									
	TL									
		<table border="1"><tr><td>01</td><td>10.00</td></tr><tr><td>02</td><td>20.00</td></tr><tr><td>03</td><td>30.00</td></tr><tr><td>CASH</td><td>60.00</td></tr></table>	01	10.00	02	20.00	03	30.00	CASH	60.00
01	10.00									
02	20.00									
03	30.00									
CASH	60.00									

3. Finalization of transaction

(1) Cash or cheque tendering

Press the **TM/ST** key to get a subtotal, enter the amount tendered by your guest, then press the **TL** key if it is a cash tender or press the **CH** key if it is a cheque tender.

When the amount tendered is greater than the amount of the sale, your register will show the change due amount. Otherwise your register will show a deficit and the "ST" lamp will light up.

- Cash tendering

Key operation	Print
2	TTL 7.35
TM/ST	CASH + 10.00
1000 TL	CASH + 2.65

- Cheque tendering

Key operation	Print
2	TTL 7.35
TM/ST	CH + 10.00
1000 CH	CASH + 2.65

(2) Mixed tendering (cheque + cash)

Key operation	Print
2	TTL 14.56
TM/ST	CH + 10.00
1000 CH	CASH + 5.00
500 TL	CASH + 0.44

(3) Cash or cheque sale that does not need a tender amount entry

Enter items and press the **TL** key if it is a cash sale or press the **CH** key if it is a cheque sale. Your register will display the total sale amount.

Key operation	Print
3 0 0 1	01 3.00
2 PLU	002PLU 5.00
TL	CASH 8.00
	In the case of cheque sale
	CH 8.00

(4) Credit sale

Enter items and press the credit key

Key operation	Print
2 5 0 0 1	01 25.00
3 2 5 0 2	02 32.50
CR	CR 57.50

(5) Mixed-tender sale (cash or cheque tendering + credit sale)

Key operation	Print
~	TTL 49.50
TM/ST	CASH + 9.50
9 5 0 TL	CR 40.00
CR	

Note: For cheque tendering, press the **CH** key instead of the **TL** key.

(6) Cash tendering by money keys

The three money keys **20** , **10** and **5** are operative for cash tendering for easier key-in operation. For details, contact your dealer.

<Example>	<u>Key operation</u>	<u>Display</u>
	20 → 20.00	
	10 → 10.00	
	5 → 5.00	

Note 1) This function is applicable only for the machines delivered to the SUK sales areas.

Note 2) The **TL** and **CL** keys alone are operative once that any of the **20** , **10** and **5** money keys has been pressed.

Key operation	Display
?	
TM/ST	14.80 ST
20	20.00
TL	5.20 →

4. Computation of VAT (Value Added Tax)/tax

The following five tax systems are available on your register. You can select any of them depending on cases.

(1) VAT 1, 2, 3 system (manual entry method using programmed percentages)

→ **TM/ST** → **VAT**

This system provides the VAT calculation for taxable 1, taxable 2, and taxable 3 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **TM/ST** key.

(2) Tax 1, 2, 3 system (manual entry method using programmed percentages)

→ **TM/ST** → **VAT**

This system provides the tax calculation for taxable 1, taxable 2, and taxable 3 subtotals. This calculation is performed using the corresponding programmed percentages when the **VAT** key is pressed just after the **TM/ST** key, and the calculated taxes are added to those subtotals, respectively.

(3) VAT 1, 2, 3 system (automatic operation method using programmed percentages)

This system, at settlement, calculates VAT for taxable 1, taxable 2, and taxable 3 subtotals by using the corresponding programmed percentages.

(4) Tax 1, 2, 3 system (automatic operation method using programmed percentages)

This system, at settlement, calculates taxes for taxable 1, taxable 2, and taxable 3 subtotals by using the corresponding programmed percentages, and also adds the calculated taxes to those subtotals, respectively.

(5) VAT 1 system (manual entry method for subtotals on VAT 1 preset percentages)

→ **TM/ST** → **VAT**

This system enables the VAT calculation for the then subtotal. This calculation is performed using the VAT 1 preset percentages when the **VAT** key is pressed just after the **TM/ST** key.

For this system, the keyed-in tax rate can be used.

Note: If any item % entry or item discount entry has been made until the VAT or tax calculation is performed, the markup or markdown is added to or subtracted from taxable 1, taxable 2, or taxable 3 subtotal according to the tax status of the item concerned.

Key operation

When the VAT 1, 2, 3 system
(manual entry method) is
selected:

4 2 5

3 4 0

Print

O1	4.25
O2	3.40
SUBTL	7.65
TAXBL1	7.65
VAT1	1.00
NET	6.65
CASH	7.65

5. VAT shift entries

This feature is intended to shift the tax status of a particular department or PLU programmed for taxable 1 or taxable 1 and taxable 3 when such a department or PLU is entered.

1. When the VAT shift entry is made for a particular department or PLU programmed for taxable 1, their tax status shifts to taxable 2.
2. When this entry is made for a particular department or PLU programmed for taxable 1 and taxable 3, the tax status "taxable 1" remains unchanged, but the other, "taxable 3", shifts to tax delete.

< Procedure >

Press the **VAT SHIFT** key to activate the VAT shift entry prior to entering department(s) or PLU(s) concerned.

Key operation		Print
In the case of 1 above		
	VAT SHIFT	
3 2 5	1	01 3.25
6 2 5	2	02 6.25
	TM/ST	SUBTL 9.50
	VAT	TAXBL2 9.50
	TL	VAT2 0.86
		NET 8.64
		CASH 9.50

Key operation		Print
In the case of 2 above		
	VAT SHIFT	
2 5 0	3	03 2.50
8 5 0	4	04 8.50
	TM/ST	SUBTL 11.00
	VAT	TAXBL1 11.00
	TL	VAT1 1.43
		NET 9.57
		CASH 11.00

6. Percent calculations (premium or discount)

- Your register provides the percent calculation for the subtotal or each item entry.
- Percentage: 0.01 to 99.99%

(1) Percent calculation for item entries

Key operation	Print
8 0 0 [1]	O1 8.00
[%1]	-10.00%
1 0 [PLU]	ITEM%1 -0.80
7 [.] 5 [%1]	O1OPLU 7.15
[TL]	-7.5%
	ITEM%1 -0.54
	CASH 13.81

(2) Percent calculation for the subtotal

Key operation	Print
4 [⊗]	4X 1.40
1 4 0 [1]	O1 5.60
2 2 0 [2]	O2 2.20
[2]	O2 2.20
[TM/ST]	SUBTL 10.00
[%2]	10.00%
[TL]	ST%2 1.00
	CASH 11.00

7. Deduction

Your register allows you to deduct a certain amount between programmed upper and lower limits after the entry of an item or the computation of a subtotal.

(1) Deduction for item entries

Key operation	Print
8 5 0 [2]	O2 8.50
5 0 [⊖]	ITEM- -0.50
[TL]	CASH 8.00

(2) Deduction for the subtotal

Key operation	Print
7 1 0 [3]	O3 7.10
2 [PLU]	002PLU 5.00
[TM/ST]	SUBTL 12.10
2 5 [⊖]	ST- -0.25
[TL]	CASH 11.85

8. Refund entries

- Refund entry is effective only for plus (+) departments and plus (+) PLUs.
- For refund entry, press the [RF] key first and then the department, PLU and direct PLU keys.
- Repeated or multiplied refund entries are also possible.

Key operation	Print
2 5 0 [RF] [1]	O1 R -2.50
7 [⊗]	-7% 2.10
3 [RF] [PLU]	003PLU R -14.70
[TL]	CASH + 17.20

9. Printing of non-add code numbers

Enter a non-add code number such as a guest code number and credit card number within a maximum of eight digits and press the **#** key. The numerical entry can be made at any point during the entry of a sale. Your register will print it at once.

Key operation	Print
1 2 3 0 #	#00001230
1 5 0 0 1	01 15.00
TL	CASH 15.00

10. Guest check copy

You can use this function when you want to take a copy of guest check. Press the **GUEST** key and make a desired entry.

Note: The guest check copy has nothing to do with the memory.

Key operation	Print
GUEST	XCOPYX
2 4 5 1	01 2.45
4 5 0 2	02 4.50
2	02 4.50
3 ⊗	3X 3.30
3 3 0 3	03 9.90
TL	CASH 21.35

11. Free text printing

- Free text (max. 21 characters) programmed in the PGM mode can be printed out at any point of registration.
- The text has nothing to do with the memory.

Key operation	Print
#	
1550	
1	
TL	
	MEDIUM
	O1 15.50
	CASH 15.50

12. Received on account entries

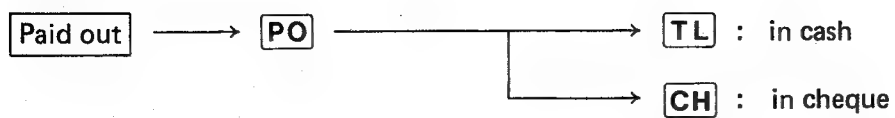
< Procedure >



Key operation	Print
4800	
RA	
CH	
	RA
	CH 48.00

13. Paid out entries

< Procedure >



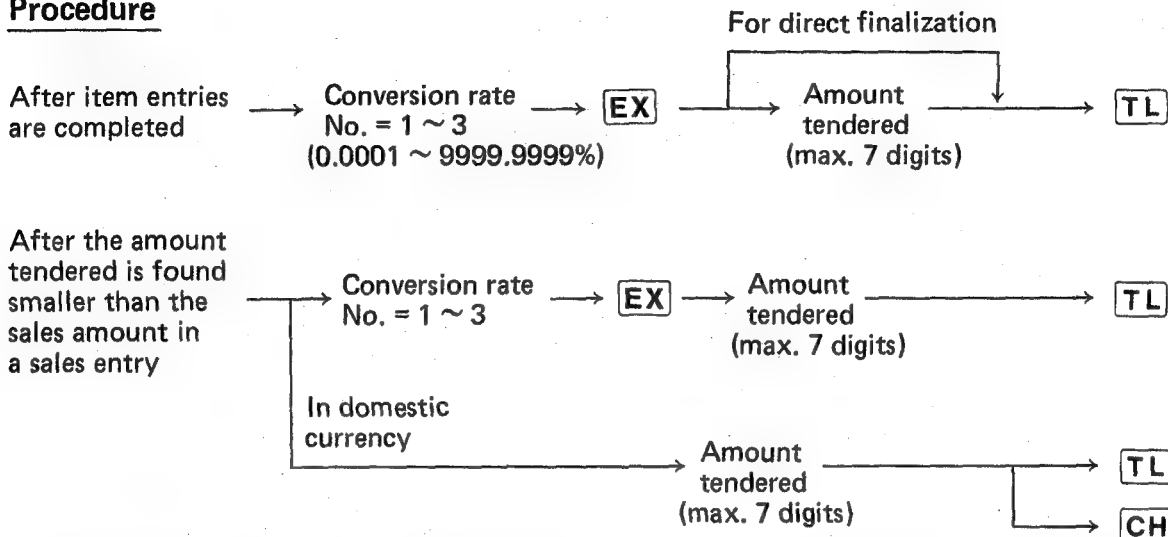
Key operation	Print
3 0 0 0 [PO]	<div>PO CASH 30.00</div>
[TL]	

14. Currency conversion

With 3 conversion rates programmed, this register permits payment with foreign currencies.

Press the **EX** key, and the subtotal is converted with a preset rate into a subtotal expressed in the foreign currency. After the currency conversion, only cash can be handled.

Procedure



Key operation	Print
2300 1	01 23.00
4650 2	02 46.50
Currency conversion → 1 EX	TTL 69.50
100000 TL	CONV.1 12.3456
↑ Amount tendered in foreign currency	¥858.02
	CASH + ¥1000.00
	CASH + 11.50

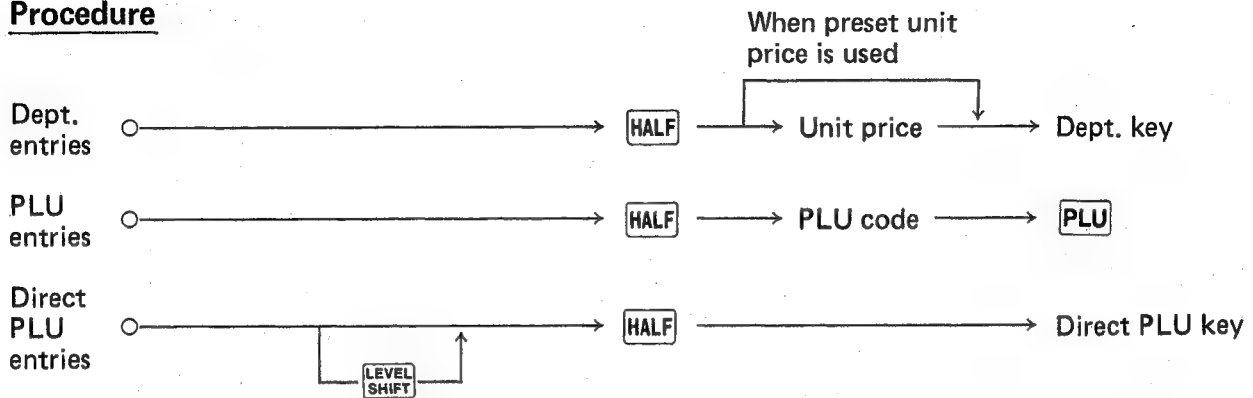
Note 1) When the conversion rate is 0 (0.0000)%, no currency conversion can be made. In such a case, a lock error occurs by pressing the **EX** key.

Note 2) If the amount after conversion to foreign currency exceeds 7 digits, a lock error results.

15. Half-pint entries

- The half-pint function enables entry of half a unit price. For details, contact your dealer.
- Half-pint entries can be made for departments and PLUs.
- For entries, press the **HALF** key first and then the department, PLU and direct PLU keys.

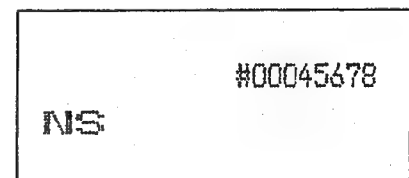
Procedure



Note: This function is applicable only for the machines delivered to those sales area that SUK covers.

16. No sale (exchange)

Simply press the **NS** key without any entry. The drawer will open and the machine will print the "NS" on both the journal and the receipt.



CORRECTION

1. Correction of entry number

When an incorrect number is entered, cancel it by pressing the **CL** key, and enter the correct number.

2. Correction of the last entry (direct void)

If you make any incorrect department, PLU/Direct PLU, percentage, or discount entry by mistake, you can void this incorrect entry by pressing the **↺** key immediately after the incorrect entry.

Key operation	Print
1 2 5 0 1	01 12.50
↺	01 12.50 -12.50
2 PLU	002PLU 5.00
↺	002PLU 5.00 -5.00
6 0 0 3	03 6.00
%1	-10.00%
↺	ITEM%1 -0.60
3 2 8 4	ITEM%1 -0.60 0.60
2 8 ⊖	04 3.28
↺	ITEM- -0.28
↺	ITEM- -0.28 0.28
TL	CASH 9.28


3. Correction of the next-to-last or earlier entries (indirect void)


You can void any incorrect department, PLU/Direct PLU, or entry made during a transaction by specifying it if you find it before finalizing the transaction (before making an amount tendered entry). This void function is applicable to plus department and PLU/Direct PLU entries only, however.

Key operation	Print
1310 [1]	O1 13.10
1755 [2]	O2 17.55
10 [PLU]	010PLU 7.15
3 [PLU]	003PLU 2.10
1310 [⌫] [1]	O1 ↵ -13.10
3 [⌫] [PLU]	003PLU ↵ -2.10
[TL]	CASH 24.70

Note: This void function is not applicable to refund entries.

CORRECTION AFTER FINALIZING A TRANSACTION (AFTER GENERATING A RECEIPT)

When you need to void incorrect entries that are found after finalizing a transaction or cannot be corrected by direct or indirect void, follow this procedure in the "  " mode.


- (1) Turn the mode switch to the "  " position.
- (2) Repeat the entries that are recorded on an incorrect receipt.
This will result in all data for the incorrect transaction being removed from the machine's memory and the addition of the voided amounts to the VOID-mode totalizer.

Incorrect receipt

26/12/87	17:03
01	8.55
02	12.85
CASH	21.40
1105M123 PETER	A



Cancellation receipt

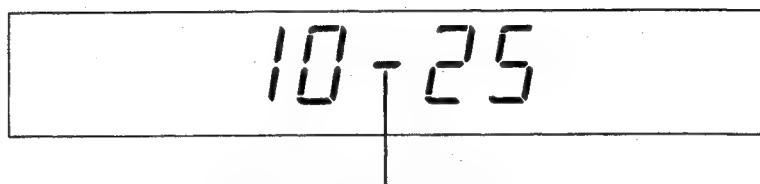
26/12/87	17:03
*  MODE *	
01	8.55
02	12.85
CASH	21.40
1106M123 PETER	A

TIME DISPLAY AND AUTOMATIC UPDATING OF THE DATE

● Time display

When you need a time display, press the $\boxed{\text{TM}/\text{ST}}$ key in the REG, OP X/Z or $\boxed{\infty}$ mode after the preceding transaction or operation is finalized. The time display disappears as soon as you press the $\boxed{\text{CL}}$ key or begin the subsequent entry.

Sample display of 10:25 AM



This bar flashes every 0.5 second.

● Automatic updating of the date

Once the internal clock unit is started at the correct time, it continues to run as long as the built-in battery is charged, and updates the date (day, month, year) properly.

VALIDATION PRINTING FUNCTION

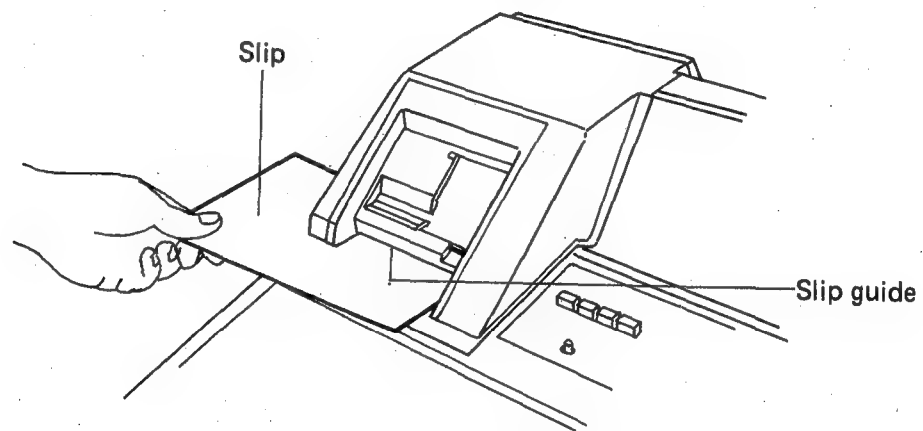
The machine can issue simplified receipt slips.

1. Placing of slip and printing method

- (1) Insert the slip, with its printed face down, into the slip guide.
Make sure the slip is pushed in enough deep and fully to the right. Otherwise, it may result in poor printing.

- (2) Now press the **VP** key. The validation printing will start.

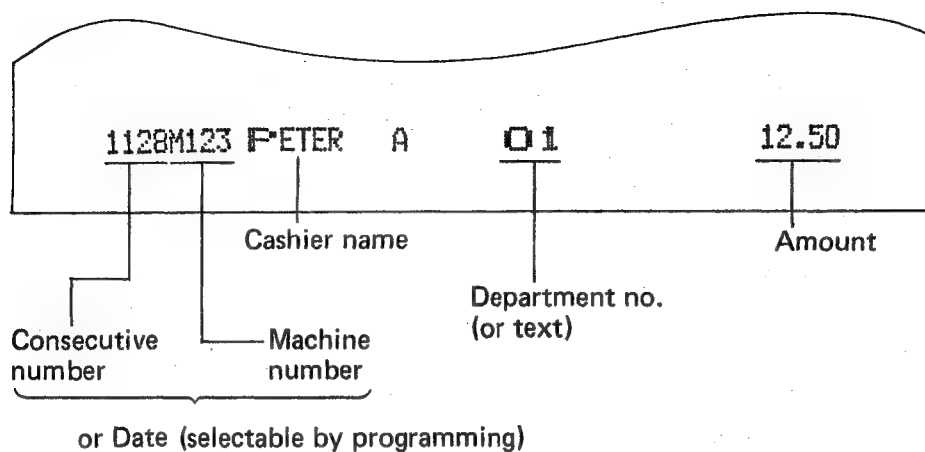
Note) Validation printing can be made up to a preset number of times.



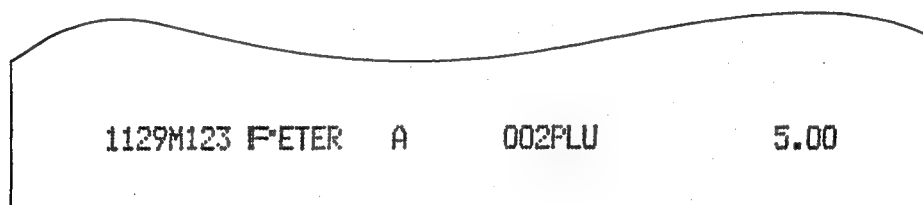
2. The validation printing can occur just after the following registrations

2-1. Validation printing of item entries

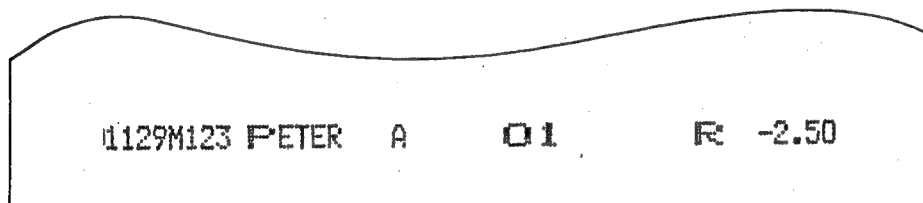
(1) Department entry



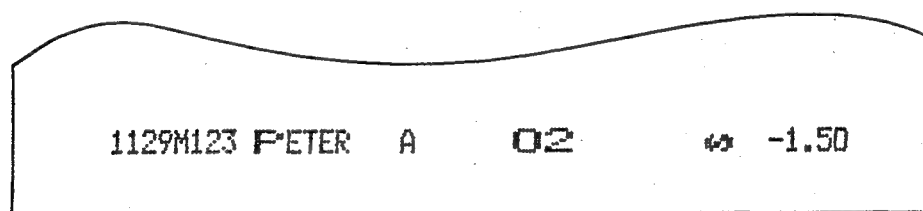
(2) PLU entry



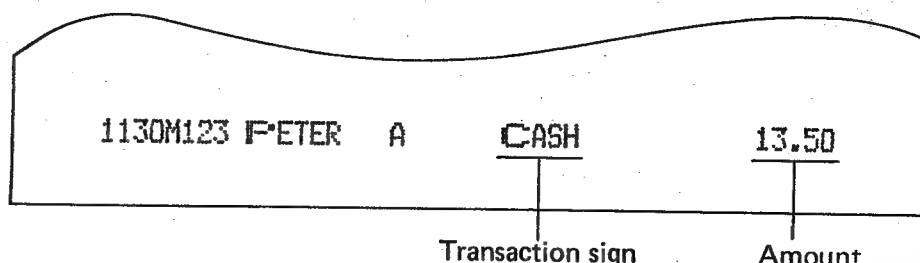
(3) Refund entry



(4) Direct or indirect void



2-2. Validation printing after the finalization of a transaction



Transaction signs
(programmable)

- | | |
|-----------------------------------------------------|------------|
| (1) After completion of cash sale entry | |
| • When a change calculation occurs | TOTAL |
| • When no change calculation occurs | CASH |
| (2) After completion of check sale entry | |
| • When a change calculation occurs | TOTAL |
| • When no change calculation occurs | CH |
| (3) After completion of credit sale entry | |
| • At only credit sale | CR |
| • At mixed tendering (check sale + cash sale) | TOTAL |
| (4) After completion of PO entry | CASH or CH |
| (5) After completion of RA entry | CASH or CH |

Note: When you make an entry for which compulsory validation printing has been programmed, the "VP" lamp will light up in the display. Carry out the validation printing successively until the lamp goes off (or by the programmed number of times), replacing validation slips. You cannot proceed to any further entry unless this printing is completed.

3. Validation slip specification

Make validation slips according to the following specification.

The use of any slips other than specified causes the printer to malfunction.

(1) Type of slip

Normal paper, pressure-sensitive paper, or carbon paper

(2) Dimensions of slip

Size: 130 mm or wider, 60 mm or longer

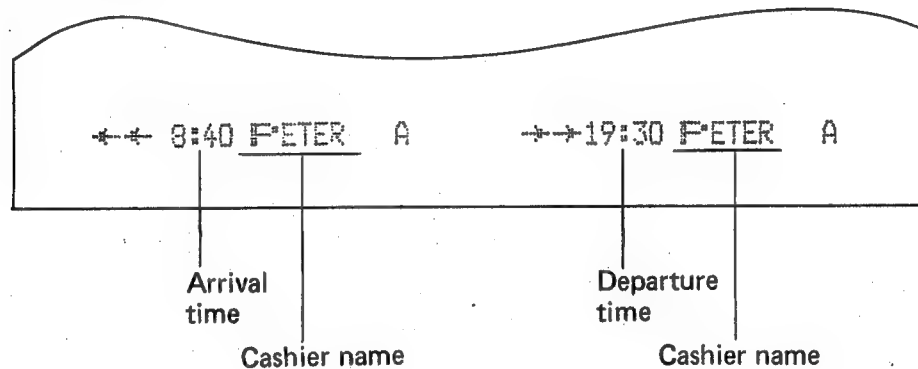
Thickness: 0.07 – 0.15 mm

PRINTING OF THE EMPLOYEE ARRIVAL AND DEPARTURE TIMES

The ER-3100 allows the operator to print the employee arrival and departure times, using the validation printing function. (See page 69)

- (1) Turn the mode switch to the "OP X/Z" position.
- (2) Put a card into the paper chute and perform the following key operation.
 - 1) Arrival time (printed on the receipt)
Numeric key 1 → **VP**
 - 2) Departure time (printed on the journal)
Numeric key 2 → **VP**

Sample printout



COPY RECEIPT PRINTING

If your guest wants receipt after you have finalized a transaction with the receipt ON-OFF switch at the OFF position (no receipting), press the **RCPT** key. This will make a copy receipt with the total printed.

Your register can print copy receipts regardless of the position of the receipt ON-OFF switch.

Consult your local dealer.

Key operation	Print on the receipt	Print on the journal
8 5 0 2		27/12/87 19:36
3 ⊗		02 8.50
1 5 0 1		3X 1.50
TL		01 4.50
		CASH 13.00
For receipting → RCPT	<div> 27/12/87 19:36 CASH 13.00 1138M123 PETER A </div> <div> 27/12/87 19:36 XCOPYX CASH 13.00 1138M123 PETER A </div>	<div> 27/12/87 19:36 02 8.50 3X 1.50 01 4.50 CASH 13.00 1138M123 PETER A </div>

When the receipt ON-OFF switch is in the ON position, the "XCOPYX" symbol will be printed on the receipt.

OVERLAPPED CLERK ENTRY

This function allows to switch from one cashier to another cashier and to interrupt the first cashier's entry. So the second cashier can do his entry in this mode. Interrupt handling is possible only in the overlapped clerk entry. For actual use of this function, contact your dealer.

Example:

Cashier A: Entry started


Cashier B: Cashier change (A to B), interrupt initiated

Cashier B: Transaction finished

Cashier A: Cashier change (B to A), entry restarted

Note 1) The overlapped clerk entry is not effective while the tendering sale is going on.

Note 2) Only the total sales amount is printed on the receipt in the overlapped clerk entry mode.

Note 3) If any cashier is still making an entry (or has not finalize the transaction yet), the machine does not run in any mode other than REG and .










Note 4) If any cashier is still making an entry (or has not finalized the transaction yet), no X/Z reports can be printed. The corresponding cashier symbol (s) is displayed at this time.

1 : Cashier A

2 : Cashier B

3 : Cashier D

4 : Cashier E

Key operation	Comment
<p>(1) Entry is started.</p> <p>1 0 0 </p> <p>3 6 0 </p> <p></p>	Cashier A is specified.
<p>(2) Entry is interrupted.</p> <p>3 </p> <p>1 5 0 </p> <p></p>	Cashier B is specified.
<p>(3) Entry is restarted.</p> <p>1 0 0 </p> <p>3 0 0 </p> <p></p>	Cashier A is specified.

READING AND RESETTING OF SALES TOTALS

	Mode	Item	Key operation
Daily sales totals	OP X/Z mode	Individual cashier reading	11 → [⊗] → [TL]
		Individual cashier resetting	11 → [•] → [⊗] → [TL] Note 1
	X1 mode	Full department reading	1 → [⊗] → [TL]
		Reading of transaction	2 → [⊗] → [TL]
		Full cashier reading	12 → [⊗] → [TL]
		Reading of cash in drawer	3 → [⊗] → [TL]
		Reading of hourly sales information	4 → [⊗] → [TL]
		Individual dept. reading of PLU data	5 → [⊗] → Dept. code → [TL]
		Blockwise reading of PLU data	6 → [⊗] → Start PLU code → [⊗] → End PLU code → [TL] For individual reading
		Full reading of PLU data	6 → [⊗] → [TL]
		Full item reading	9 → [⊗] → [TL]
	Z1 mode	Full cashier resetting	12 → [•] → [⊗] → [TL] Note 1
		Blockwise resetting of PLU data	6 → [•] → [⊗] → Start PLU code → [⊗] → End PLU code → [TL] For individual resetting
		Resetting of PLU data	6 → [•] → [⊗] → [TL]
		Full item resetting	Grand total nonresettable 8 → [•] → [⊗] → [TL]
			Grand total resettable 9 → [•] → [⊗] → [TL]

	Mode	Item	Key operation
Periodic consolidation	X2/Z2 mode	Reading of the number of guests and net sales for each day (31 days)	7 → <input type="button" value="⊗"/> → <input type="button" value="TL"/>
		Full item reading	9 → <input type="button" value="⊗"/> → <input type="button" value="TL"/>
		Full item resetting	9 → <input type="button" value="."/> → <input type="button" value="⊗"/> → <input type="button" value="TL"/>

Note 1. If the machine is programmed for compulsory cash/cheque declaration "compulsive," consult the section "COMPULSORY CASH/CHEQUE DECLARATION" on page 89.

Note 2. When in the overlapped clerk entry mode, the machine cannot print any X/Z report as long as any cashier is still making entries (or before all cashiers finalize transactions).

Sample prints on the report

- Individual cashier reading/resetting

YOUR RECEIPT	
THANK YOU	
*****RESTAURANT*****	
*****SHARP*****	
27/12/87	19:44
*** X READ ***	
CASHER A PETER	Cashier name
G.C.CT 0 2	Guest check copy count
GUEST 0 52	No. of customers
TTL 1165.14	Sales amount
RA/PO 15.00	Received-on-account/paid-out
CA/CH 938.49	Cash/cheque sale
CR 226.65	Credit sale
CACHID 953.49	Cash/cheque in drawer
1147M123 PETER A	

When Z1 resetting is taken, the print shown below occurs.

*** Z1 RESET ***

● Full cashier reading/resetting

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87

19:47

When Z1 resetting is taken, the print shown below occurs.

*** X READ ***

*** Z1 RESET ***

CASHER A PETER

G.C.CT Q 2

GUEST Q 54

TTL 1219.24

RA/PO 15.00

CA/CH 984.09

CR 235.15

CACHID 999.09

CASHER E CASHER E

G.C.CT Q 2

GUEST Q 15

TTL 134.21

RA/PO 66.00

CA/CH 113.71

CR 20.50

CACHID 179.71

CASHER RESET

G.C.CT Q 0

GUEST Q 0

TTL 0.00

RA/PO 0.00

CA/CH 0.00

CR 0.00

CACHID 0.00

CASHER

TTL

G.C.CT

Q 4

GUEST

Q 69

TTL

1353.45

RA/PO

81.00

CA/CH

1097.80

CR

255.65

CACHID

1178.80

Cashier total

1154M123 PETER A

Cashier reset
total

● Reading of cash in drawer

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87 19:49

*** X READ ***

*CAID *

GUEST	Q	69	No. of customers
CAID		1097.80	Cash in drawer
CACHID		1226.95	Cash/cheque in drawer

1155M123 PETER A

● Reading of hourly sales information

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****
*****SHARP*****

27/12/87 19:50

*** READ ***
XHOURLYX

Time	15:00	Q 38	No. of times of transaction
		808.06	Sales amount
	16:00	Q 20	
		377.59	
	17:00	Q 2	
		46.10	
	19:00	Q 10	
		143.10	
	TTL	Q 70	
		1374.85	

1156M123 PETER A

• Individual department reading of PLU data

YOUR RECEIPT			
THANK YOU			
XXXXXXRESTAURANTXXXXX			
XXXXXXSHARFXXXXX			
27/12/87		19:55	
XXX X READ XXX			
XPLU/DPX			
Text programmed for dept.	02		Dept. no.
PLU code	1#02	3.50	Unit price
Text programmed for PLU	001PLU Q	4	Sales q'ty
	1.84%	14.00	Sales amount
Share against the dept. total	S	96	Stock q'ty
	2#02	5.00	
	002PLU Q	64	
	42.02%	319.75	
	S	136	
	EXT TTL Q	37	Entry by the dept. key
	56.14%	427.20	
	TTL Q	105	Dept. total
	100.00%	760.95	
	XSETPLUX		
	TTL Q	0	Total of set PLUs
		0.00	
1158M123 PETER A			

● Blockwise reading/resetting of PLU data

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87 19:57

XXX X READ XXX

XFLUX

PLU code	1#02		3.50		
Text	001PLU	Q	4		
			14.00		
	S		96		
	2#02		5.00		
	002PLU	Q	64		
			319.75		
	S		136		
	3#01		2.10		
	003PLU	Q	24		
			19.35		
	S		26		
	TTL	Q	92		
			353.10		
	XSETPLUX				
	TTL	Q	0		
			0.00		

1159M123 PETER A

When Z1 resetting is taken, the print shown below occurs.

*** Z1 RESET ***

Dept. no.

Unit price

Sales q'ty

Sales amount

Stock q'ty

● Full reading/resetting of PLU data

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87 19:58

*** X READ ***

*PLUX

PLU code	1#02	3.50	Unit price
Text	001PLU Q	4	Sales q'ty
		14.00	Sales amount
	S	96	Stock q'ty
	2#02	5.00	
	002PLU Q	64	
		319.75	
	S	136	
	3#01	2.10	
	003PLU Q	24	
		19.35	
	S	26	

When Z1 resetting is taken, the print shown below occurs.

*** Z1 RESET ***

Dept. no.

10#01	7.15	
010PLU Q	8	
	49.61	
S	-8	
TTL Q	100	} Total of PLUs
	402.71	
*SETPLUX		
TTL Q	0	} Total of set PLUs
	0.00	
1160M123 PETER A		

● Full department reading

YOUR RECEIPT			
THANK YOU			
*****RESTAURANT*****			
*****SHARP*****			
27/12/87		22:27	
*** X READ ***			
XDPTX			
01	Q	116	Sales q'ty
37.48%		554.36	Sales amount
02	Q	113	Sales composition ratio
53.18%		786.69	
03	Q	22	
7.35%		108.66	
04	Q	2	
0.80%		11.78	
19	Q	4	
1.19%		17.67	
GRS TL	Q	257	Gross total
100.00%		1479.16	("Plus" department total)
20	Q	4	
		-2.25	
-DPT	Q	4	"Minus" department total
		-2.25	
1186M123 PETER A			

● Reading of transaction

YOUR RECEIPT


THANK YOU

*****RESTAURANT*****
*****SHARP*****

27/12/87 22:25

*** X READ ***
TRANX

GRS TL	Q	257	}	Gross total ("Plus" department total)
		1479.16		
-DFT	Q	4	}	"Minus" department total
		-2.25		
ST%1	Q	3	}	%1 for subtotal
		6.91		
ST%2	Q	6	}	%2 for subtotal
		5.03		
ST-	Q	1	}	Deduction for subtotal
		-0.25		
NET		1409.51		Net total
TAXBL1		400.40		Taxable 1 amount
VAT1		52.23		VAT1 amount
TAXBL2		235.65		
VAT2		21.42		
TAXBL3		41.67		
VAT3		5.44		

ITEM%1	Q	5	}	%1 for item amount
		-3.17		
ITEM%2	Q	3	}	%2 for item amount
		0.80		
ITEM-	Q	1	}	Deduction for item amount
		-0.50		
REFUND	Q	3	}	Refund
		19.70		
40	Q	7	}	Direct/indirect void
		35.08		
MODE	Q	1	}	 mode registrations
		21.40		
VATSFT	Q	22	}	VAT shift
		235.65		
TAXDEL	Q	2	}	TAX delete
		11.00		
VP	Q	6	}	Validation printing count
NS	Q	2		
G.C.CT	Q	4	}	Guest check copy count
RA	Q	3	}	Received-on-account
		126.00		
PO	Q	2	}	Paid-out
		45.00		
CH	Q	5	}	Cheque sale
		48.15		
CR	Q	6	}	Credit sale
		135.72		
CASH	Q	72	}	Cash sale
		1298.34		
CONV.1		¥1000.00	}	Conversion 1 ~ 3
CONV.2		¥0.00		
CONV.3		¥0.00		
GUEST	Q	81		No. of customers
CASH		1212.04		Cash in drawer
CASHID		1341.19		Cash/cheque in drawer
1185M123 PETER A				

• Full item reading/resetting

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87 22:38

XXX Z1 RESET XXX — Reset symbol
 X 00001 — Read counter
 Z1 00002 — Reset counter

GT1

00000001476.91 — Net grand total (= GT2-GT3)

GT2

00000001559.26 — Grand total of plus entries

GT3

00000000082.35 — Grand total of minus entries

XDPTX

GRS TL 0 0
 100.00% 0.00

Department sales

-DPT 0 0
 0.00

XTRANSX

ST%1 0 0
 0.00

ST%2 0 0
 0.00

ST- 0 0
 0.00

Transaction sales

CASH 0 0
 0.00

CONV.1 X0.00

CONV.2 X0.00

CONV.3 X0.00

XCAID X

GUEST 0 0

CAID 0.00

CACHID 0.00

When reading is taken, the print shown below occurs.

XXX X READ XXX
 X 00001

XHOURLYX

TTL 0 0
 0.00

Hourly sales

XCASHERX

CASHER RESET
 G.C.CT 0 0
 GUEST 0 0
 TTL 0.00
 RA/PO 0.00
 CA/CH 0.00
 CR 0.00
 CACHID 0.00

Sales by cashier

CASHER TTL
 G.C.CT 0 0
 GUEST 0 0
 TTL 0.00
 RA/PO 0.00
 CA/CH 0.00
 CR 0.00
 CACHID 0.00

1191M123 PETER A

- Reading of the number of guests and net sales for each day (31 days)

YOUR RECEIPT			
THANK YOU			
*****RESTAURANT*****			
*****SHARP*****			
27/12/87		19:38	
*** X2 READ ***			
DAILY			
Day	01	Q	81
			1476.91
	TTL	Q	81
			1476.91
1281M123 PETER A			

} Number of guests and net sales for the first day

● Full item reading and resetting of periodic consolidation

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****
*****SHARP*****

27/12/87 19:48

XXX Z2 RESET XXX

Z1 00002

Z2 00002

GT1
00000002460.20

GT2
00000002626.83

GT3
00000000166.63

***DPTX**

GRS TL Q 0
100.00% 0.00

-DPT Q 0
0.00

***TRANSX**

ST%1 Q 0
0.00

ST%2 Q 0
0.00

ST- Q 0
0.00

CASH Q 0
0.00

CONV.1 %0.00

CONV.2 %0.00

CONV.3 %0.00

***CAID ***

GUEST Q 0

CAID 0.00

CACHID 0.00

Reset symbol

Reset counter of daily total

Reset counter of periodic consolidation

Grand totals

Department sales

Transaction sales

CASHER

CASHER TTL

G.C.CT Q 0

GUEST Q 0

TTL 0.00

RA/PO 0.00

CA/CH 0.00

CR 0.00

CACHID 0.00

DAILY

TTL Q 0
0.00

1286M123 PETER A

Sales by cashier

Number of guests and net sales for each day (31 days)

Memory overflow mark

- When the sale amount exceeds the memory capacity (max. 9 digits), the overflow mark "!!" is printed to the left of the amount.

COMPULSORY CASH/CHEQUE DECLARATION

1. If your machine has been programmed for compulsory cash/cheque declaration, you must declare cash/cheque in drawer in advance according to the type of the declaration when you take cashier Z reports.

Use the procedure shown in 3 below for this declaration.

2. Types of compulsory cash/cheque declaration

- (1) OP X/Z mode — — — — Compulsive when individual cashier resetting is taken
- (2) Z1 mode — — — — — Compulsive when full cashier resetting is taken

Note: Compulsory cash/cheque declaration is available in the above two types. You can choose either of these. Consult your local dealer for details.

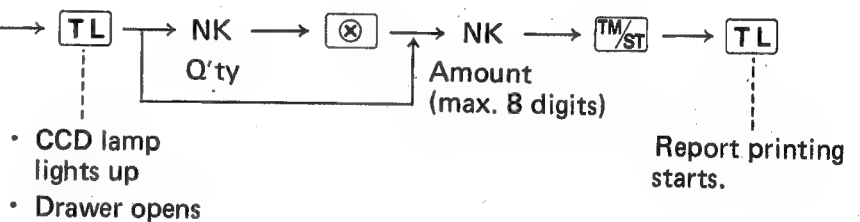
3. Key operation

OP X/Z mode

11 → [•] → [⊗]

Z1 mode

12 → [•] → [⊗]



4. Cash/cheque-in-drawer declared by the above procedure — CA/CH IS — and cash/cheque-in-drawer in memory — CA/CH MUST — are printed on the report. The difference between them — CA/CH IS — CA/CH MUST — is also printed.

YOUR RECEIPT

THANK YOU

*****RESTAURANT*****

*****SHARP*****

27/12/87

20:05

12 X	60.00	No. of pieces of coins or no. of sheets of cheques
	720.00	Coin's or cheque's denomination
		Amount
CCD	720.00	
*** Z1 RESET ***		
CASHER A PETER		
G.C.CT	Q 2	
GUEST	Q 19	
TTL	768.11	
RA/PO	30.00	
CA/CH	696.88	
CR	71.23	
CACHID	726.88	Cash/cheque in drawer to be obtained = C
TLIS	720.00	Total of entered (declared) cash/cheque-in-drawer = T
DIFFER	-6.88	Difference = T - C

1291M123 PETER A

IN CASE OF POWER FAILURE

When power is lost, the machine retains its memory contents and all information on sales entries.

1. When power failure is encountered in register IDL state or during an entry, the machine returns to the normal state of operation after power recovery.
2. When power failure is encountered during a printing cycle the register prints "===== " and then carries out the correct printing procedure. (See the sample print.)

YOUR RECEIPT

THANK YOU

XXXXXXRESTAURANTXXXXX
XXXXXXSHARFXXXXX

27/12/87 20:17

01	3.25
=====	
02	12.50
CASH	15.75

1299M123 PETER A

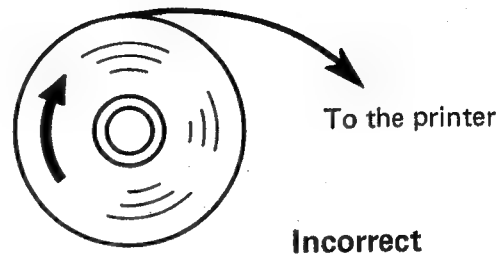
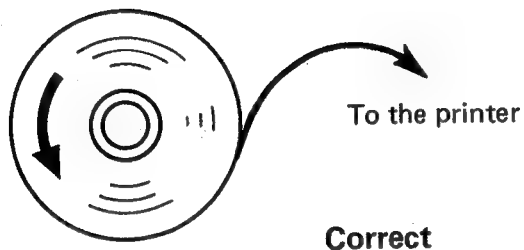
Power failure
symbol

Print after power
recovery

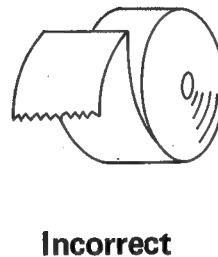
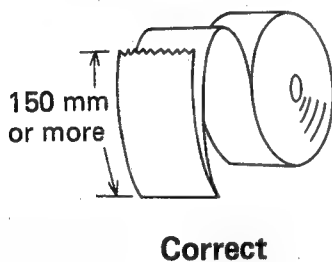
INSTALLING AND REMOVING THE PAPER ROLL

Install the paper roll in the printer. Be careful then to set the roll and fold the paper end correctly.

(How to set the paper roll)

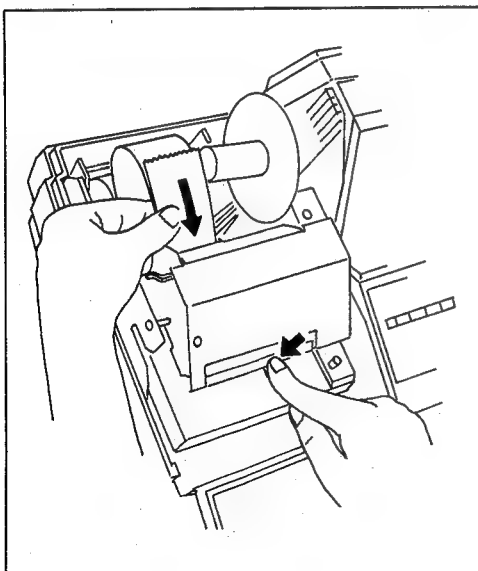


(How to fold the paper end)



1. Installing the paper roll

● Installing the receipt paper roll



(1) Remove the printer cover.

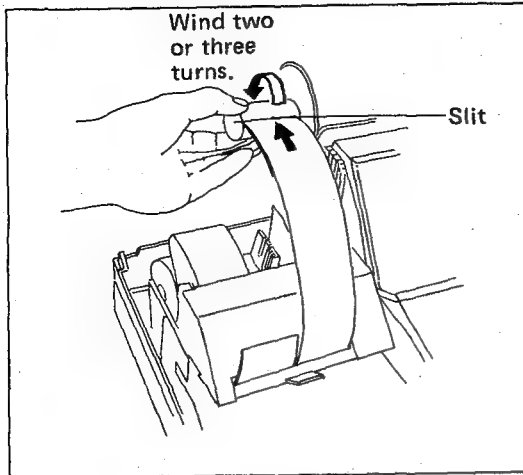
Set the paper roll correctly as illustrated above and drop it into the printer.

(2) Press the paper roll release lever down and insert the folded paper end into the paper chute of the printer. Pull the paper end that has come out of the printer, holding down the lever.

(3) Advance the paper by a required length by pressing the receipt paper feed key.

Note: Make sure the ink ribbon cassette has been mounted on the printer when installing the receipt paper roll.

- **Installing the journal paper roll**

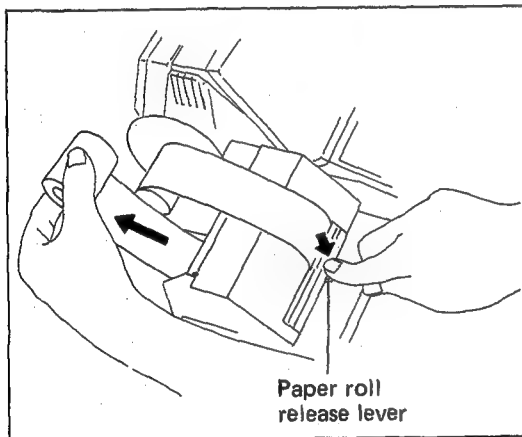


Set the journal paper roll in the same manner as the receipt paper roll. Insert the paper end that has come out of the printer, into the slit in the paper take-up spool, wind it two or three turns around the spool shaft, and set the spool on the bearing.

2. Removing the paper roll

When a red dye appears on the paper roll, it is time to replace the existing paper roll. Replace the paper roll with a new one.

- **Removing the receipt paper roll**

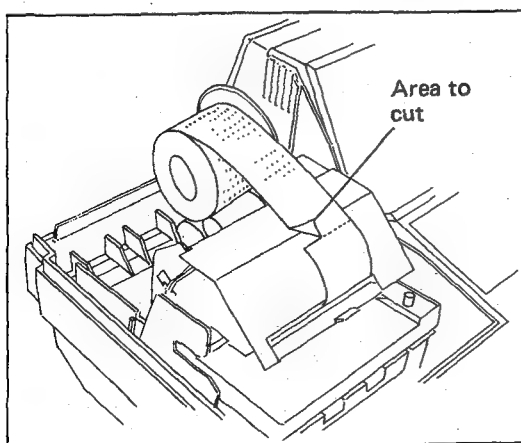


(1) Remove the printer cover.

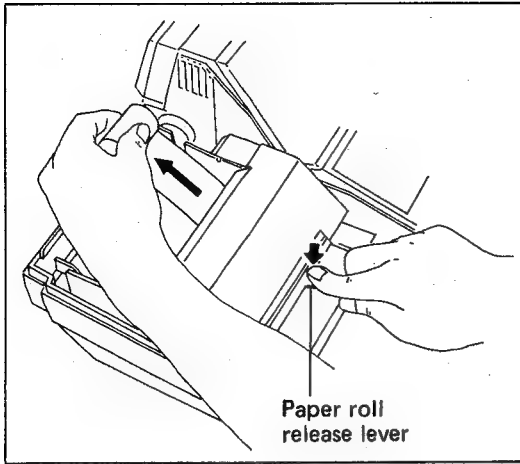
(2) Press and hold the paper roll release lever down and draw out the existing paper roll from the paper roll location.

Note: Be sure to pull the roll in the direction of the arrow.

- **Removing the journal paper roll**

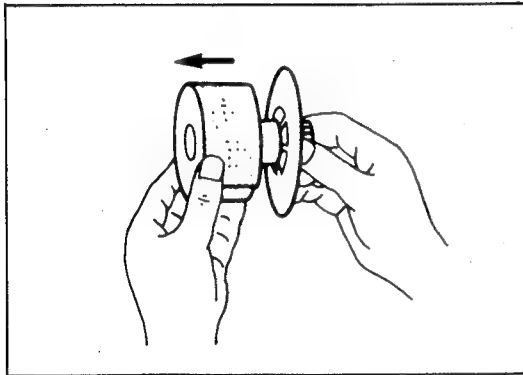


(1) Press the journal paper feed key to advance the paper by several lines and then cut it.



- (2) Press and hold the paper roll release lever down and remove the existing paper roll from the paper roll location.

Note: Be sure to pull the roll in the direction of the arrow.



- (3) Remove the paper roll from the take-up spool.

Request

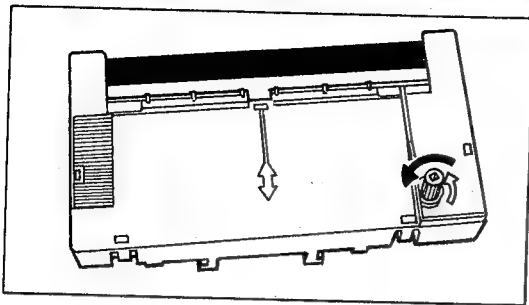
Be sure to use paper rolls specified by SHARP.

The use of any other paper rolls than specified could cause paper jamming, resulting in register malfunction.

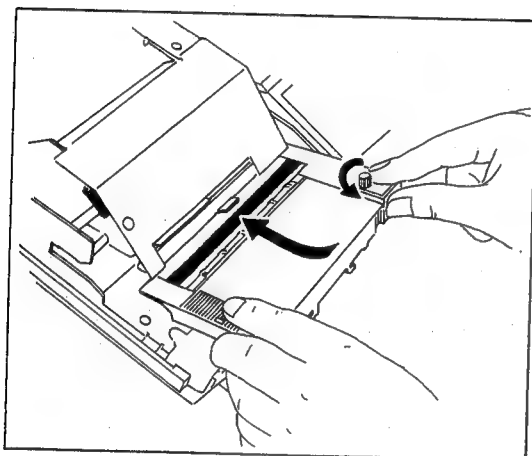
Paper specification

Paper width:	44.5 ± 0.5 mm
Max. outside diameter:	83 mm
Weight:	52.3 — 64.0 g/m ² (45 — 55 kg/1000 sheets/788 x 1091 mm ²)
Quality:	bond paper
Paper tube:	18 mm

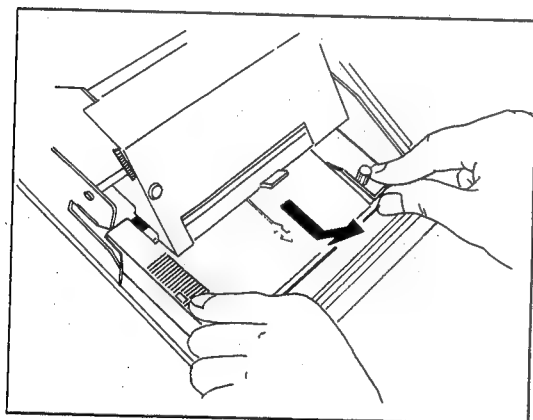
INSTALLING THE INK RIBBON CASSETTE



- (1) Remove the printer cover.
- (2) Rotate the knob on the ink ribbon cassette in the direction of the arrow to stretch the ribbon tight.



- (3) Place the ribbon at the front of the ink ribbon cassette under the paper roll release lever and set the entire cassette in the printer.
- (4) Rotate the knob two or three turns in the direction of the arrow to make sure it rotates smoothly. Also, make sure the ribbon is not folded.

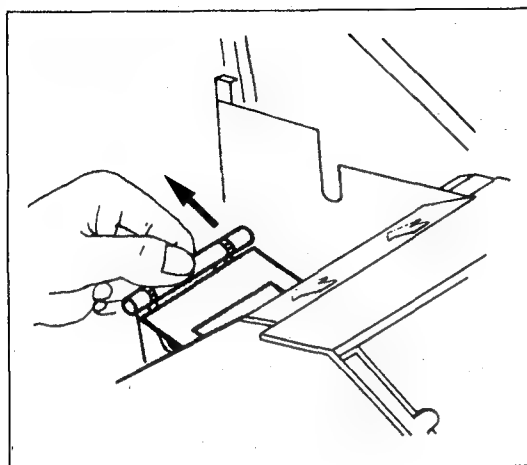


- (5) To remove the cassette, pull it slightly and then lift it up.

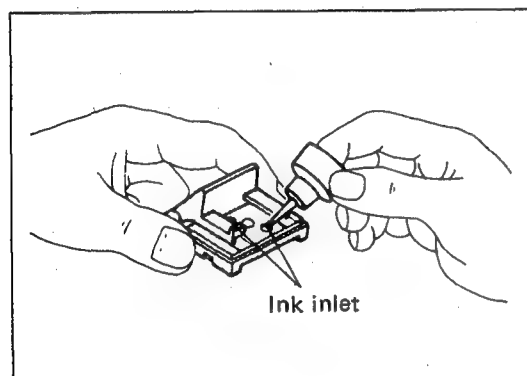
Request: Be sure to use ink ribbon cassettes specified by SHARP. The use of any cassettes other than specified could cause troubles in the printer.

INK REFILL

If the logo becomes too light, refill it with the supplied logo ink following the procedure given below.



- (1) Remove the printer cover.
- (2) Remove the store name logo by pulling it in the direction of the arrow.



- (3) Pour two or three drops of logo ink through the ink inlet situated on the back of the logo.
- (4) Replace the logo by the reverse procedure of removing.
- (5) Replace the printer cover.

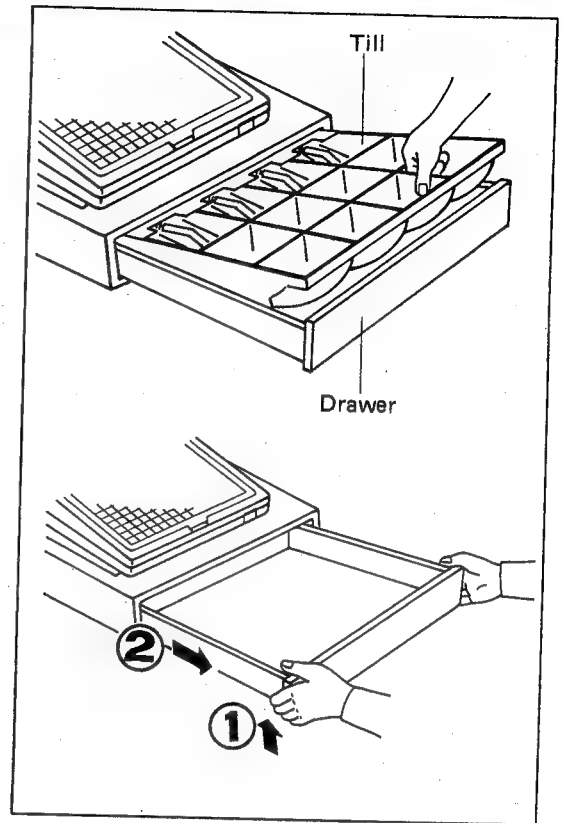
Precautions

1. The logo ink first gives a clear print 10 to 15 hours after being poured into the logo. Therefore, refilling after the daily business is most effective.
2. Overinking should be avoided. This will create a blurry print.
3. The ink is exclusively used for the logo.
Do not apply the ink to the ink ribbon and ink roller.

* When the supplied ink is exhausted, purchase the logo ink specified by SHARP.

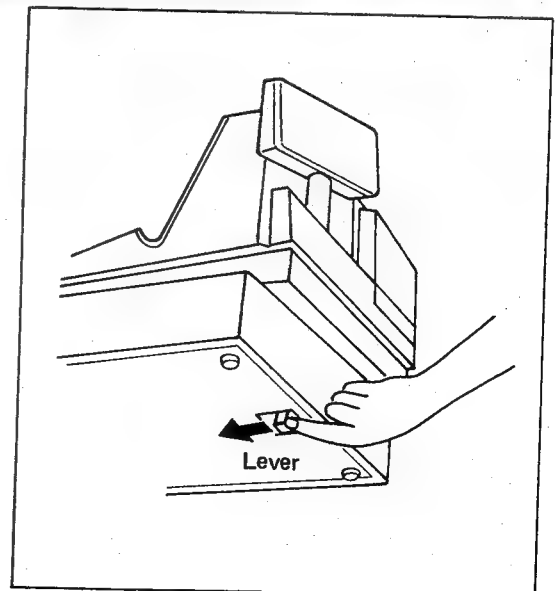
REMOVING THE TILL AND THE DRAWER

The till in the register is detachable. After closing your business for the day remove the till from the drawer and keep the drawer open. This will prevent money from being stolen. To detach the drawer, pull it forward fully with the till removed, and draw it out by lifting it up.



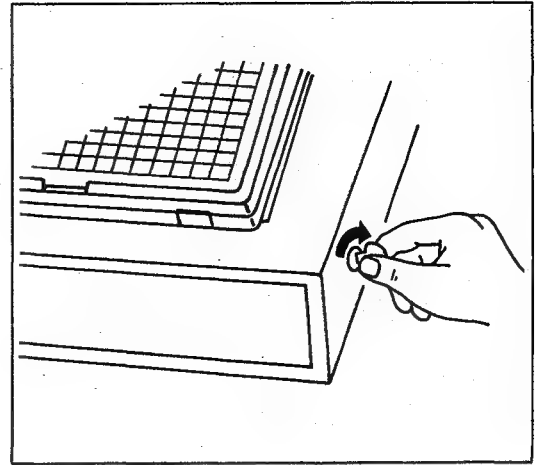
OPENING THE DRAWER BY HAND

The drawer automatically opens in the usual way, however, when power failure is encountered or the machine becomes out of order, slide the lever in the opening located on the machine bottom toward the front. (See the figure at the right.) The drawer will not open, if it is locked with a drawer lock key.

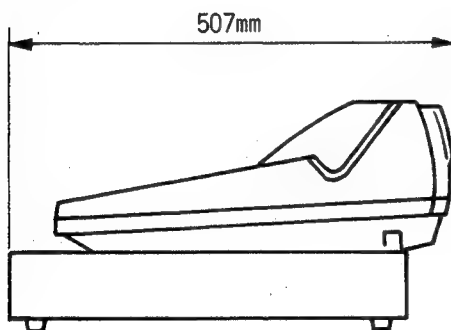


For the U.K. or Australia model

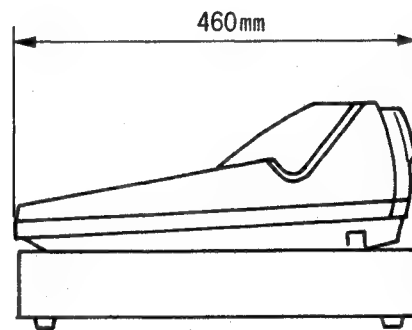
Insert the key into the drawer lock and turn it 90 degrees clockwise.



Note: When the ER-3100 is delivered, the drawer is set as illustrated in Figure (A). Where required, you are able to move the register frontward as illustrated in Figure (B).



(A)



(B)

Also, you are able to separate the drawer from the register.
Please consult your dealer for details.

BEFORE CALLING FOR SERVICE

The malfunctions shown in the left-hand column below, labeled "Fault," do not necessarily indicate functional faults of the machine. It is therefore advisable to refer to the "Checking" shown in the right-hand column before calling for service.

Fault	Checking
(1) The display won't be illuminated even when the mode switch is turned to any other position than " ⏻ ".	<ul style="list-style-type: none"> ● Is power supplied to the electric outlet? ● Is the power cord plug out or loosely connected to the electrical outlet?
(2) The display is illuminated, but the whole machine refuses entries.	<ul style="list-style-type: none"> ● Is the cashier key inserted? ● Is the mode switch set properly at the "REG" position?
(3) No receipt is issued.	<ul style="list-style-type: none"> ● Is the receipt paper roll properly installed? ● Is there a paper jam? ● Is the receipt ON-OFF switch in the "OFF" position?
(4) No journal paper is taken up.	<ul style="list-style-type: none"> ● Is the take-up spool installed on the bearing properly? ● Is there a paper jam?
(5) Printing is unusual.	<ul style="list-style-type: none"> ● Is the ink ribbon cassette installed properly? ● Is the ink ribbon's life completed?

LIST OF OPTIONS

For your ER-3100 register, the following options are available.
For details, contact your local dealer.

1. **RAM memory chip model ER-46PL1**
One unit provides 673 PLUs, and two units 987 PLUs.
2. **Remote drawer model ER-37DW3**
Only one ER-37DW3 can connect to your ER-3100.
3. **Spare mode switch models ER-31MD1/MD2/MD3/MD4/MD5**
A total of 100 spare switches, 20 for each of the 5 different types are available.
4. **RS-232C interface model ER-31RS2**
5. **1.5-meter cable model ER-52CB**
6. **Level converter model ER-67LC**
7. **3.5-inch floppy disk drive model ER-01FD**
8. **Auxiliary power supply battery unit model ER-30BT**
9. **Till model ER-38CC**
10. **Till cover model ER-38CV1/CV2/CV3/CV4/CV5 or ER-38CV**
West Germany model: ER-38CV1/CV2/CV3/CV4/CV5
U.K. or Australia model: ER-38CV
11. **Drip-proof key cover**

SPECIFICATIONS

Model:	ER-3100
External dimensions:	440 (W) x 507 (D) x 331 (H) mm
Weight:	15.5 kg
Power source:	AC local voltage $\pm 10\%$, 50/60 Hz
Power consumption:	Stand-by 12 W Operating 40 W
Working temperature:	0°C to 40°C
Electronics:	LSI (CPU), etc.
Built-in battery:	Ni-Cd rechargeable battery, memory holding time about 1 month (with fully charged built-in battery, at room temperature)
Display:	Fluorescent display tube
Printer:	
Type:	2-station serial dot-matrix (7 x 7 font) printer
Printing speed:	Approx. 2.2 lines/second
Printing capacity:	21 digits each for receipt and journal paper
Other functions:	1. Logo function 2. Receipt ON-OFF switch, journal selective function 3. Receipt and journal independent paper feed function 4. Validation printing function
Ink ribbon: (Cassette type)	Color: Purple (single color) Width: 13 mm Length: 10 meters
Logo:	Dimensions of the printing face: 30 (W) x 20 (H) mm
Paper roll:	Width: 45.5 \pm 0.5 mm Max. diam.: 83 mm Weight: 52.3 – 64.0 g/m ² (bond paper)
Cash drawer:	4 slots for bills, and 8 for coins

Accessories:	Manager key	2
	Submanager key	2
	Operator key	2
	Drawer lock key	2
	Printer cover lock key	2
	Ink ribbon cassette	1
	Standard logo	1 (mounted on the main body)
	Logo ink	1 (5 cc)
	Paper roll	2
	Spool	1
	Key sheet for the standard keyboard layout	1 (mounted on the main body)
	Blank key sheet	1
	Key sheet for programming	1
	Bill separator	1
	Dust cover	1 sheet
	Instruction manual	1 copy

* Specifications and appearance subject to change without notice for improvement.

SHARP PARTS GUIDE

CODE:00ZER3100PG-E



ELECTRONIC CASH REGISTER

SECTION 3 . PARTS

MODEL ER-3100

SRV key : LKGIM7113RCZZ

PRINTER: M-2640

Kellneuschloß: DKIT-8227 RCZZ
 1C - 8321

CONTENTS

- 1 Exteriors (cabinet, printer etc.)
- 2 Keyboard unit
- 3 Packing material & Accessories
- 4 Drawer box unit (KA, KB)
- 5 Drawer box unit (U.S.A., CANADA, TQ, TR, TS)
- 6 Main PWB unit
- 7 Display PWB unit
- 8 RAM PWB unit
- 9 Noise filter PWB unit (Except U.S.A., CANADA)
- 10 Customer display PWB unit
- 11 Articles of consumptions
- 12 Service options
- 13 AC Cord
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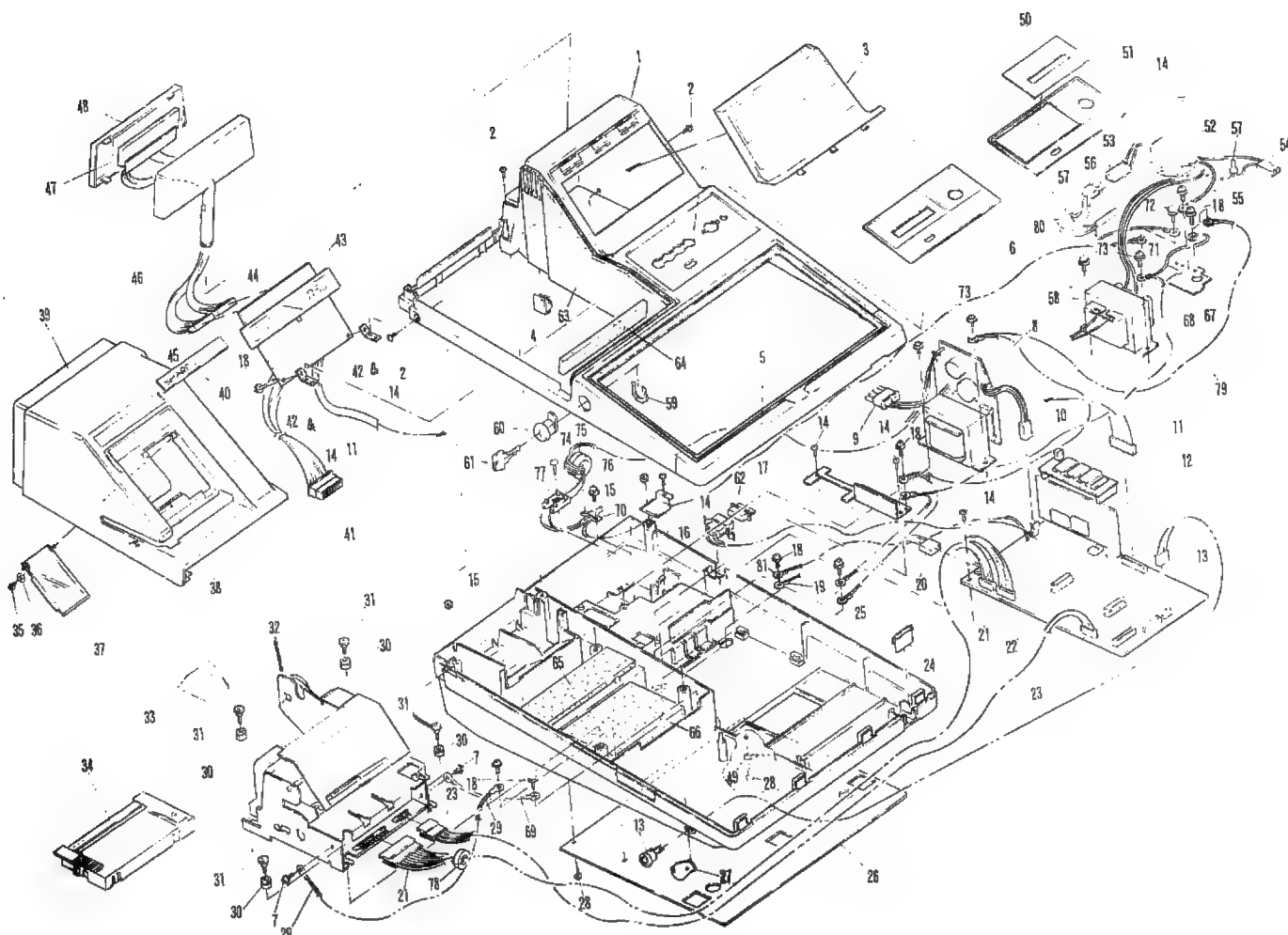
Parts marked with "△" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

1 Exteriors(cabinet,printer etc.)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCABB6917RCZZ	AT	N	D	Top cabinet
2	XBBSC30P10000	AA		C	Screw (3×10)
3	PFILW6798RCZZ	AM	N	D	Display filter (U.S.A.,CANADA)
	PFILW6812RCZZ	AK	N	D	Display filter (Other countries)
4	LHLDW5034BCZZ	AB		C	Wire holder(CKN-10) (for customer display connector)
5	HPNLC6746RCZZ	AG	N	D	Key pad
6	HDECE6755RCZZ	AH	N	D	Switch panel (Except U.S.A.,CANADA)
7	XBPSD40P06K00	AA		C	Screw (4×8K)
	CPWBF7046RC05	BM	N	E	Noise filter PWB unit (KA)
8	CPWBF7046RC04	BM	N	E	Noise filter PWB unit (KB)
	CPWBF7046RC02	BL	N	E	Noise filter PWB unit (TQ,TR,TS)
9	QCNCW6720RC05	AG		C	Connector 4pin with wires (Mode ↔ Noise filter)
10	QCNCW6915RC01	AE		C	Connector
11	QCNCW-7052RCZZ	AD	N	C	Connector (Main ↔ Display)
12	CPWBF7044RC02	BL	N	E	RAM PWB unit (U.S.A.,CANADA)
	CPWBF7044RC01	BL	N	E	RAM PWB unit (Other countries)
13	QCNCW-7018RCZZ	AL	N	C	SIO connector
14	XUBSD30P08000	AA		C	Screw (3×8)
15	XNESD30-24000	AA		C	Nut (3NS)
16	HPNLC6747RCZZ	AG	N	C	AC code panel
17	LANGK7228RCZZ	AG	N	C	Option angle
18	XBPSD30P06KS0	AA		C	Screw (3×6KS)
19	QCNCW-7050RCZZ	AD	N	C	Earth wire (from key PWB)
20	0AGQCW218MKSS	AL		B	Connector with wire (U.S.A.,CANADA)
	0AGQCW221MKSS	AL	N	B	Connector with wire (Other countries)
21	QCNCW-7013RCZZ	AN	N	C	Lead wire (Printer P) (U.S.A.,CANADA)
	QCNCW-7013RC01	AM	N	C	Lead wire (Printer P) (Other countries)
22	CPWBF7041RC02	CG	N	E	Main PWB unit (U.S.A.,CANADA)
	CPWBF7041RC03	CG	N	E	Main PWB unit (Other countries)
23	QCNCW-7014RCZZ	AH	N	C	Lead wire (Printer S)
24	GFTAF6709RCZZ	AC	N	D	Front cover
25	GCABA6919RCZZ	BA	N	D	Bottom cabinet (Except TQ,TR,TS)
	GCABA6935RCZZ	BA	N	D	Bottom cabinet (TQ,TR,TS)
26	GITAUA6721RCZZ	AM	N	D	Base plate
27	GFTAS6710RCZZ	AB	N	D	Loader cover
28	XUBSD30P06000	AA		C	Screw (3×6)
29	QCNCW-7049RCZZ	AD	N	C	Earth wire
30	PCUS-4101CCZZ	AB		C	Printer cushion
31	LX-BZ1007CCZZ	AB		C	Screw
32	KI-OB6706RCZZ	CA	N	E	Printer (M2640)
	PSTM-6658RC01	AR	N	C	Stamp (except TR,TS)
33	PSTM-6660RC01	AR	N	C	Stamp (TR)
	PSTM-6662RC01	AR	N	C	Stamp (TS)
34	PRCN-2320RCZZ	AX	N	S	Ribbon cassette
35	XUPSD20P04000	AA		C	Screw (2×4)
36	XWHSD20-04060	AA		C	Washer
37	PFILW6714RCZZ	AD		D	Journal filter
38	PCUT-1027CCZZ	AC		C	Paper cutter
39	GCOVH6878RCZZ	AR	N	D	Printer cover
40	HBDGD6817RCZZ	AC	N	D	SHARP badge
41	QCNCW-7017RCZZ	AN	N	C	Key cable
42	LANGK7227RCZZ	AC	N	C	Display angle
43	CPWBF7042RC02	BR	N	E	Display PWB unit
44	QCNCW-7015RCZZ	AK	N	C	Pop-up cable 1
45	QCNCW-7016RCZZ	AH	N	C	Pop-up cable 2
46	GCABB6918RCZZ	AH	N	D	Customer cabinet
47	CPWBF7043RC01	BH	N	E	Customer display PWB unit
48	PFILW6797RCZZ	AM	N	D	Customer filter (U.S.A.,CANADA)
	PFILW6813RCZZ	AH	N	D	Customer filter (Other countries)
49	QCNCW-7048RCZZ	AD	N	C	Earth wire (from Drawer connector holder)
50	HDECE6744RCZZ	AD	N	D	Push switch panel (U.S.A.,CANADA)
51	HDECE6743RCZZ	AH	N	D	Switch panel (U.S.A.,CANADA)
52	RFILN6001RCZZ	AT	N	B	Noise filter (U.S.A.,CANADA)
53	QCNCW-7032RCZZ	AD	N	C	Connector with wire (2pin) (U.S.A.,CANADA)
54	QCNCW-7036RCZZ	AD	N	C	Connector with wire (U.S.A.,CANADA)
55	QCNCW-7037RCZZ	AA	N	C	Earth wire (U.S.A.,CANADA)
56	QCNCW-7031RCZZ	AD	N	C	Connector with wire (2pin) (U.S.A.,CANADA)
57	QTANP1094CCZZ	AA		C	Terminal (U.S.A.,CANADA)
58	RTRNP6763RCZZ	AY	N	B	Power transformer (U.S.A.,CANADA)
59	MSPRK6660RCZZ	AC		C	Clip
60	LKGIW7108RCZZ	AK	N	B	Lock for printer cover
61	LKGIM6784RCZZ	AD		B	Printer cover key (1PC)
62	GFTAB6264RCN1	AB	N	D	Lid(for battery connector) (Except U.S.A.,CANADA)
63	PCUSS6724RCZZ	AK	N	C	Cushion (Except U.S.A.,CANADA)
64	PCUSS6723RCZZ	AK	N	C	Cushion (Except U.S.A.,CANADA)
65	PCUSS6720RCZZ	AK	N	C	Cushion (Except U.S.A.,CANADA)
66	PCUSS6721RCZZ	AK	N	C	Cushion (Except U.S.A.,CANADA)
67	GITAUA6723RCZZ	AQ	N	D	Main earth plate (Except TQ,TR,TS)
68	QCNCW-7035RCZZ	AD	N	C	Earth wire (U.S.A.,CANADA)
69	QCNCW-7039RCZZ	AB	N	C	Earth wire (Except TQ,TR,TS)

1 Exteriors(cabinet,printer etc.)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
70	LHLDW4081CCZZ	AC		C	AC cord holder (TQ,TR,TS)
71	QTANP0004HCZZ	AB		C	Lug terminal (4φ) (U.S.A.,CANADA)
72	XBPBZ40P06K00	AA		C	Screw (4×6K) (Except TQ,TR,TS)
73	XBPSD40P08KSD	AA		C	Screw (4×8KS)
74	XUPSD30P14000	AA		C	Screw (3×14)
75	RCORF6629RCZZ	AQ		C	Core (ESD-R-25L) (Except U.S.A.,CANADA)
76	XBPSD30P08KSD	AA		C	Screw (3×8KS)
77	QTANN6629RCZZ	AF		C	Block terminal (Except U.S.A.,CANADA)
78	RCORF6627RCZZ	AK		C	Ring core (31MM) (TQ,TR,TS)
79	QCNW-7035RCZZ	AD	N	C	Earth wire (KA,KB)
80	QTANP0004HCZZ	AB		C	Lug terminal (4φ) (KA,KB)
81	QCNW-7071RCZZ	AE	N	C	Earth wire(CPU)
101	LBNDJ0004UCZZ	AA		C	Cable band (TE10K) (for ring core No75 etc.)
102	LBNDJ2003SCZZ	AA		C	Cable clamp(large) (for connector No54)(U.S.A.,CANADA)



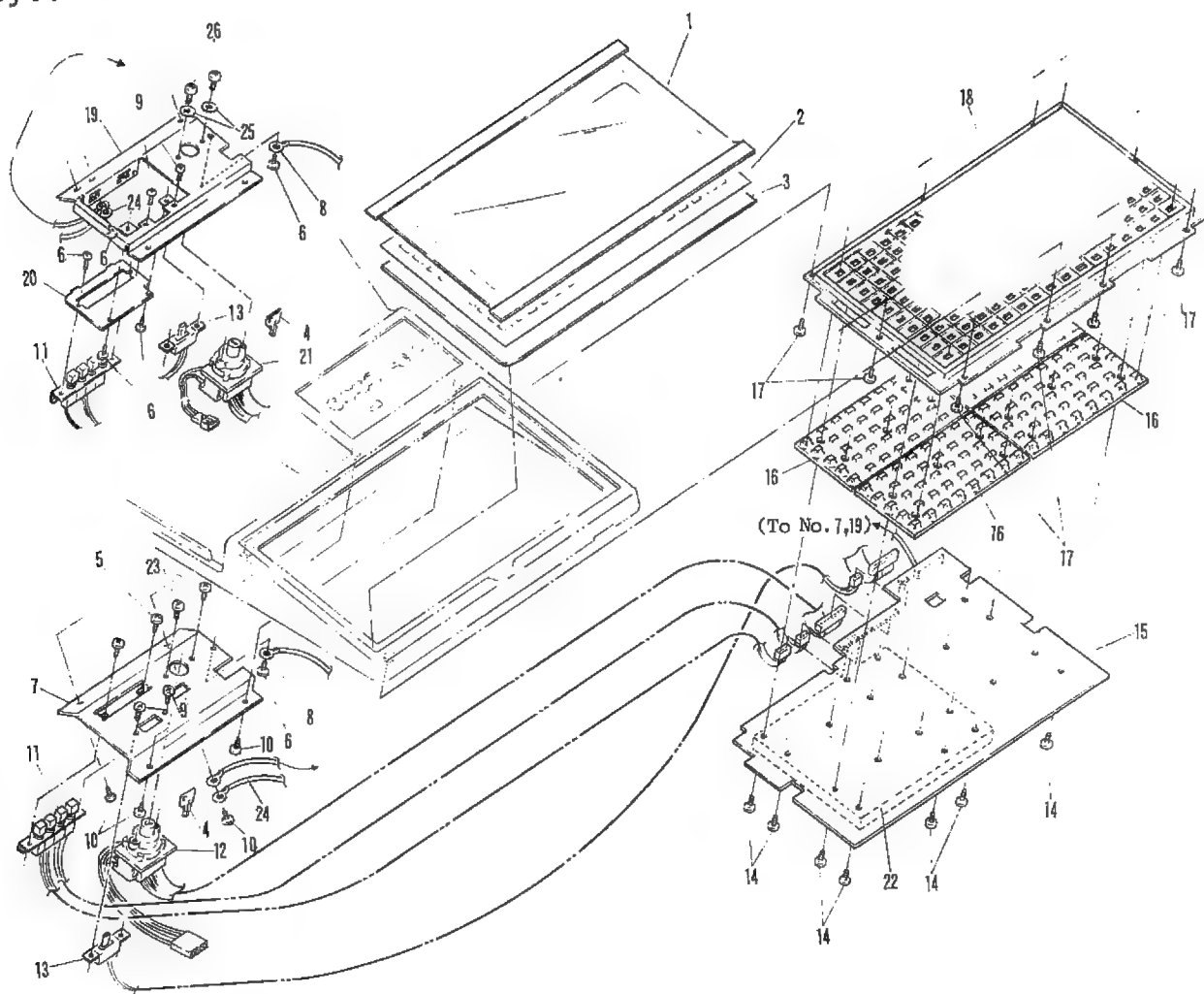
2 Keyboard unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PSHEZ6687RCZZ	AW	N	C	Key sheet A
2	PSHEZ6697RCZZ	AH	N	C	Character sheet(standard)
	PSHEZ6710RCZZ	AK	N	C	Character sheet(standard)
3	PSHEZ6688RCZZ	AQ	N	C	Key sheet B
	LKGI M7110RCZZ	AG	N	B	Master key (MA)
4	LKGI M7111RCZZ	AG	N	B	Operator key (OP)
	LKGI M7129RCZZ	AE	N	B	Sub master key (SM)
5	XBPSD30P06K00	AA		C	Screw (3×6K)
6	XBPSD30P06KS0	AA		C	Screw (3×6KS)
7	LANGK7229RCZZ	AG	N	C	Angle(for switch installment)
8	QCNW-7050RCZZ	AD	N	C	Earth wire
9	XBPSD20P04000	AA		C	Screw (2×4)
10	XUPSD30P06000	AA		C	Screw (3×6)
11	QSW-26774RCZZ	AU	N	B	Switch
12	LKGI W7132RCZZ	AK	N	B	Mode switch
13	QSW-26773RCZZ	AN	N	B	Slide switch
14	0ALZD2006-670	AA		C	Screw (Z=D2006-670)
15	0AL401KFG-001	BA		C	Key PWB (401KFG-001-90R)(Board only)
16	0AL421KFG-001	BB		B	Key rubber sheet (421KFG-001-90R)
17	XUBSD30P08000	AA		C	Screw (3×8)
18	0AL101KFG-001	AV		C	Housing (101KFG-001-90R)
19	LANGT7246RCZZ	AG	N	C	Angle(for switch installment)
20	LANGK7248RCZZ	AC	N	C	Clerk angle
21	LKGI W7130RCZZ	AK	N	B	Mode switch
22	PCUSS6722RCZZ	AK	N	C	Cushion (180×160)
23	XUSSD30P06000	AA		C	Screw (3X6)
24	QCNW-7072RCZZ	AE	N	C	Earth wire
25	XWSPN30-07000	AA		C	Spring washer (3mm)
26	XUSSD30P08000	AA	N	C	Screw (3×8)
101	0ALW-P9002-01	AC		B	Connector (W-P9002#01)(2pin)
102	0ALW-P9003-01	AC		C	Connector (W-P9003#01)(3pin)
103	0ALW-P9012-01	AF		C	Connector (W-P9012#01)(12pin)
104	0ALW-P0718-01	AG		C	Connector (W-P0718#01)(18pin)
105	0ALZT03001588	AA		B	Diode (1S1588)(Z-T0300-01588)
106	0ALZT05010108	AD		B	Diode (1S108)(Z-T0501-00108)
107	0ALZZ05200138	AQ		B	IC (LS138)(Z-Z0520-00138)
108	0ALZY05600045	AQ		B	IC (HC157)(Z-Z0560-00045)
109	0ALZW88347318	AF		B	Block resistor (47KΩ×8)(Z-W0883-47318)
110	0ALZW8AA473DJ	AA		C	Resistor (47KΩ)(Z-W08AA-473DJ#01)
111	0ALZV12CK104E	AD		C	Capacitor (0.1μF)(Z-V12CK104EMS#1)
501	DUNTK8196RCZZ	BK		E	Keyboard unit(flat type)
	(Unit)				(Include except No.1~3)
901	DUNTK8237RCZZ	BS	N	E	Keyboard unit
	DUNTK8313RCZZ	BS	N	E	Keyboard unit

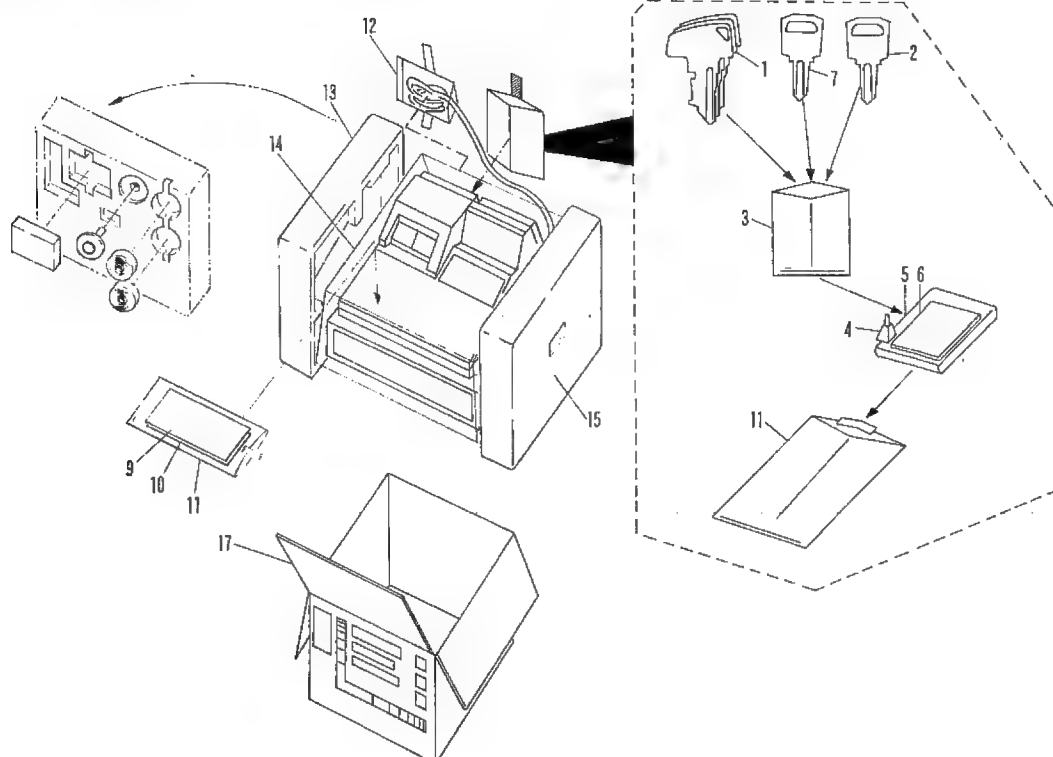
3 Packing material & Accssories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
	LKGI M7110RCZZ	AG	N	B	Master key (MA)
1	LKGI M7111RCZZ	AG	N	B	Operator key (OP)
	LKGI M7129RCZZ	AE	N	B	Sub master key (SM)
2	0AGLKMKSA1680	AF		B	Drawer key
	0AGLKMDC60A01	AH		B	Drawer key
3	SSAKA0001SCZZ	AA		D	Vinyl bag (200×300mm)
4	UINK-1001CCZZ	AK		S	Ink (5cc)
5	GCÖVD6871RCZZ	AP	N	D	Dust cover
	TINSE7006RCZZ	AX	N	D	Instruction book
	TINSK7032RCZZ	BB	N	D	Instruction book
	TINSE7024RCZZ	AX	N	D	Instruction book
6	TINSE7024RCZZ	AX	N	D	Instruction book
	TINSF7025RCZZ	AX	N	D	Instruction book
	TINSG7026RCZZ	AX	N	D	Instruction book
	TINSS7027RCZZ	AX	N	D	Instruction book
7	LKGI M6784RCZZ	AD		B	Printer cover key (1pc)
9	PSHEZ6700RCZZ	AD	N	C	Character sheet (Blank)
10	PSHEZ6698RCZZ	AC	N	C	Character sheet (Setting)
	PSHEZ6711RCZZ	AD	N	C	Character sheet (Setting)
11	SSAKH3015CCZZ	AA		D	Vinyl bag (260×360mm)
12	SSAKA5004CCZZ	AA		D	Vinyl bag (100×300mm)
13	SPAKA7578RCZZ	AP	N	D	Packing cushion (Right)
14	SSAKA2012KCZZ	AF		D	Vinyl bag (600×540×510mm)
15	SPAKA7579RCZZ	AP	N	D	Packing cushion (Left)
17	SPAKC7556RCZZ	AR	N	D	Packing case
101	UBNDA1008CCZZ	AA		C	AC cord band
102	TCADH6653RCZZ	AB		D	Caution card
	TCADH6654RCZZ	AB		D	Caution card
103	TCAUS1003RCZZ	AC		D	Battery label
104	TCAUS1053CCZZ	AC		D	Caution label for inst. book
105	TCAUS1054CCZZ	AB		D	Caution label for AC cord
106	TLAB-4681CCZZ	AA		C	Ground label
107	LKGI M7113RCZZ	AK	N	B	Service key (SRV)

2 Keyboard unit



3 Packing material & Accessories

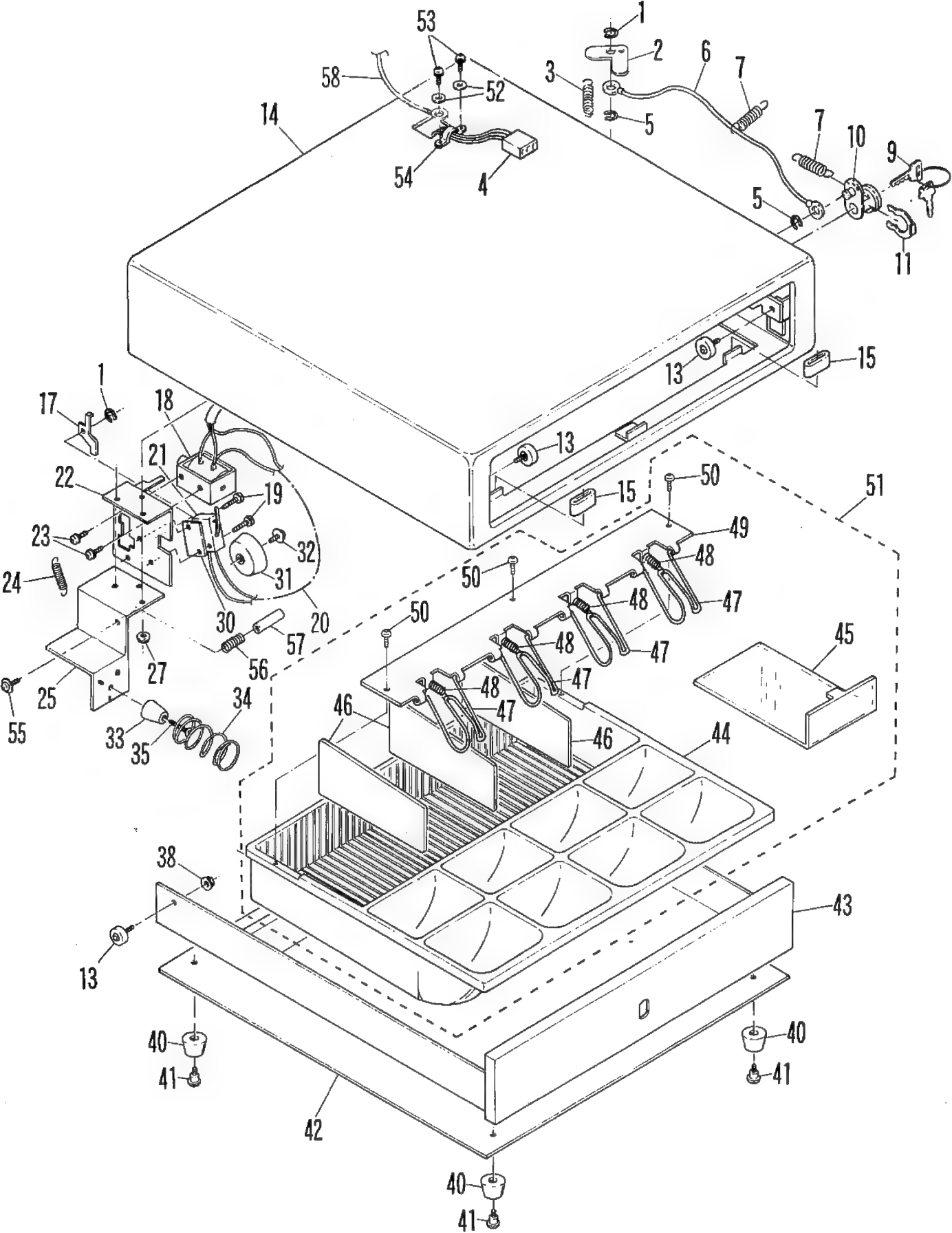


4 Drawar box unit(KA,KB)

[REDACTED]

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	0AGXRD8014060	AA		C	E type ring (4mm)
2	0AGMAM202MKSS	AD		C	Open arm
3	0AGMST200MKSS	AB		C	Open arm spring (6648)
4	0AGQCW221MKSS	AL	N	B	Connector (3pin with wire)
5	0AGXRD8023060	AA		C	M3 E type ring
6	0AGWIR200MKSS	AK		C	Open wire
7	0AGMST800MKSB	AB		C	Spring
9	0AGLKMKSA1680	AF		B	Drawer key
10	0AGKSA168101S	AL		B	Drawer lock
11	0AGMSK800MKSS	AC		C	Lock key Spring
13	0AGNRP22B1L00	AE		C	Roller
14	0AGGCM148S460	BF	N	D	Drawer cabinet
15	0AGLSG200MKSS	AB		C	Stopper rubber(Front)
17	0AGMLF206MKSS	AB		C	Lever
18	0AGRLU205MKSS	AQ		B	Plunger
19	0AGXBD202314X	AA		C	Screw (3X14)
20	0AGQCW208MKSS	AB		C	Lead wire
21	0AGQSW200MKSS	AL		B	Micro switch
22	0AGMKS243MKSS	AM		C	Lock lever
	0AGMKS212MKSS	AK		C	Lock lever
23	0AGXBD201306X	AA		C	Screw (3X6)
24	0AGMST800MKSS	AB		C	Lock spring
25	0AGLCS201MKSS	AH		C	Unit chassis
27	0AGLXZ800M4SP	AA		C	Nut
30	0AGPSP200MKSS	AB		C	Insulator sheet
31	0AGRAL201MKSS	AD		C	Bell
32	0AGXBD801408W	AA		C	Screw (4X8)
33	0AGGLG800K230	AB		C	Stopper rubber
	0AGGLG8022017	AB		C	Stopper rubber
34	0AGMST805460A	AD		C	Push out spring
35	0AGXBD803315S	AA		C	Screw
38	0AGLXZ801M6SP	AA		C	Nut
40	0AGGLG801MKSS	AB		C	Leg (26mm)
41	0AGXBD200415P	AA		C	Screw (4X15)
42	0AGGiU143S460	AS	N	C	Bottom plate
43	0AGGDW445S460	AZ	N	C	Drawer
44	0AGGCP614MKSS	AY		D	Drawer case
45	0AGGSP600MKSS	AF		C	Bill separator
46	0AGPSR600MKSS	AE		C	Bill separator
47	0AGMLV600MKSS	AD		C	Bill pressure lever
48	0AGMST600MKSB	AB		C	Bill pressure spring
49	0AGLBC601MKSS	AL		C	Bill pressure bracket
50	0AGXBD804306B	AA		C	Screw (3X6)
51	0AGCCP61448S1	BB		E	Coin case
52	0AGXWD8003050	AA		C	Washer
53	0AGXBD20038C1	AA		C	Screw
54	0AGLDW200MKSS	AD		C	Holder
55	0AGXBD806406N	AA		C	Screw
56	0AGMST809MKSB	AB		C	Spring
57	0AGMLF201MKSS	AB		C	Hammer
58	QC NW-7048RCZZ	AD	N	C	Earth wire
	(Unit)				
901	GBOXD6896RCZZ	BT	N	E	Drawer box unit
	GBOXD6892RCZZ	BT	N	E	Drawer box unit

4 Drawar box unit(KA,KB)



5 Drawar box unit(U.S.A.,CANADA,TQ,TR,TS)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	0AGXBD20038C1	AA		C	Screw
2	0AGXWD8003050	AA		C	Washer (M3)
3	0AGLDW200MKSS	AD		C	Holder
4	0AGQCW218MKSS	AL		B	Connector with wire
	0AGQCW221MKSS	AL	N	B	Connector with wire (U.S.A.,CANADA)
5	0AGGCM144S460	BF	N	D	Drawer cabinet (TQ,TR,TS)
6	0AGNRP22B1L00	AE		C	Roller
7	0AGLSG200MKSS	AB		C	Stopper rubber(Front) (Front)
8	0AGXBD202314X	AA		C	Screw-(3X14)
9	0AGQSW200MKSS	AL		B	Microswitch (TQ,TR,TS)
10	0AGPSP200MKSS	AB		C	Insulator sheet (TQ,TR,TS)
-11	0AGXRD8014060	AA		C	E type ring (4mm) (TQ,TR,TS)
12	0AGMLF220MKSS	AB		C	Lever
	0AGMLF206MKSS	AB		C	Release lever (U.S.A.,TQ,TR,TS)
13	0AGRLU205MKSS	AQ		B	Plunger (24V 250 Diode) (CANADA)
	0AGRLU210MKSS	AQ		B	Plunger (U.S.A.,TQ,TR,TS)
-14	0AGMKS243MKSS	AM		C	Lock-system (CANADA)
	0AGMKS212MKSS	AK		C	Lock system (U.S.A.)
15	0AGXBD201306X	AA		C	Screw (CANADA,TQ,TR,TS)
16	0AGMST800MKSB	AB		C	Spring (For lock cam)
17	0AGLCS201MKSS	AH		C	Unit chassis
18	0AGXBD806406N	AA		C	Screw
19	0AGMST809MKSB	AB		C	Bell hammer spring
20	0AGMLF201MKSS	AB		C	Bell hammer
21	0AGXBD804306B	AA		C	Screw (M3X6)
22	0AGLBC614MKSS	AK		C	Bill pressure bracket (L)
23	0AGMST600MKSB	AB		C	Bill pressure spring (U.S.A.)
24	0AGMLV600MKSS	AD		C	Bill pressure lever
25	0AGPSR601MKSS	AF		C	Plate (U.S.A.,TQ,TR,TS)
26	0AGXBD801408W	AA		C	Screw with spring washer (4X8) (U.S.A.)
27	0AGRAL201MKSS	AD		C	Bell
28	0AGLBC615MKSS	AF		C	Bill pressure bracket (S)
29	0AGLXZ800M4SP	AA		C	Spring nut (4mm) (U.S.A.)
30	0AGGLG800K230	AB		C	Stopper rubber
	0AGGLG8022017	AB		C	Stopper rubber (U.S.A.)
31	0AGMST805460A	AD		C	Push out spring (CANADA,TQ,TR,TS)
32	0AGXBD803315S	AA		C	Screw (3X15)
33	0AGLXZ801M6SP	AA		C	Spring nut (6mm)
35	0AGGLG801MKSS	AB		C	Rubber foot
36	0AGXBD200415P	AA		C	Screw (4X15)
37	0AGGiU143S460	AS	N	C	Plate
38	0AGGDW444S460	AZ	N	D	Drawer case
39	0AGMSK801MKSS	AE		C	Lock key spring
40	0AGDC60A-010S	AP		B	Drawer lock
41	0AGLKMDC60A01	AH		B	Drawer key (1PC)
42	0AGGCP613MKSS	AY		D	Money case
43	0AGQCW208MKSS	AB		C	Lead wire (U.S.A.)
44	0AGGCP614MKSS	AY		D	Money case (TQ,TR,TS)
45	0AGPSR600MKSS	AE		C	Separator plate (TQ,TR,TS)
46	0AGLBC601MKSS	AL		C	Bill pressure bracket (TQ,TR,TS)
47	0AGGSP600MKSS	AF		C	Bill separator (TQ,TR,TS)
48	0AGGCP615MKSS	AX		C	Money case (CANADA)
49	0AGLBC609MKSS	AH		C	Bill pressure bracket (4A) (CANADA)
50	0AGLBC610MKSS	AM		C	Bill pressure bracket (2A) (CANADA)
51	0AGMLV602MKSS	AD		C	Bill pressure lever (CANADA)
52	0AGMLV607MKSS	AK		C	Bill pressure lever R (2A) (CANADA)
53	0AGMLV606MKSS	AK		C	Bill pressure lever L (2A) (CANADA)
54	0AGLBC612MKSS	AD		C	Bill pressure angle (CANADA)
55	0AGMST604MKSB	AB		C	Bill pressure spring (4A) (CANADA)
56	0AGXBD805304N	AA		C	Screw (3X4) (CANADA)
57	QCNW-7048RCZZ	AD	N	C	Earth wire
501	0AGCCP6156500	BD		C	Money case unit (5C/6B) (CANADA)
	(Unit)				
901	GB0XD6882RCZZ	BS	N	E	Drawer box unit
	GB0XD6883RCZZ	BS	N	E	Drawer box unit (U.S.A.)
	GB0XD6893RCZZ	BS	N	E	Drawer box unit (CANADA)
					kompl. Kanalsade (TQ,TR,TS)

6 Main PWB unit

NOT A PART OF THE UNIT

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LBNDJ0004UCZZ	AA		C	Band,cable (TE10K)
2	PRDAF6639RCZZ	AF	N	C	Heat sink
3	QCNCM1101CCZZ	AB		B	Connector (2pin)
4	QCNCM5080BC0C	AC		B	Connector (3pin)
5	QCNCM6821RC0C	AC		B	Connector (3pin)
6	QCNCM6862RC0B	AB		B	Connector (2pin)
7	QCNCM6865RC0E	AB		C	Connector (5pin)
8	QCNCM6865RC1A	AD		C	Connector (11pin)
9	QCNCM6865RC1J	AC		C	Connector (10pin)
10	QCNCM6879RC1C	AC	N	C	Connector (13pin)
11	QCNCW6730RC05	AF		B	Connector with wire (3pin)
12	QCNCW6887RC0B	AB		B	Connector (2pin)
13	QCNC-6905RC1F	AH	N	C	Connector (16pin)
14	QCNCW-7013RCZZ	AN	N	C	Lead wire (Printer P)
15	QCNCW-7013RC01	AM	N	C	Lead wire (Printer P)
16	QCNCW-7014RCZZ	AH	N	C	Lead wire (Printer S)
17	QCNCW-7045RCZZ	AE	N	C	Jumper wire(GND)
18	QCNCW-7046RCZZ	AE	N	C	Jumper wire(GND)
19	QCNCW-7071RCZZ	AE	N	C	Earth wire(CPU)
20	QFS-A0301QCZZ	AC		A	Fuse
21	QFS-B0301QCZZ	AE		A	Fuse (3.15A/125V)
22	QFS-A3089KCZZ	AC		A	Fuse (1A/125V)(NRT-MINI)
23	QFS-C2521TAZZ	AE		A	Fuse (2.5A 250V)
24	QFS-C4081CCZZ	AF		A	Fuse (630mA 250V)
25	QFSHA1002CCZZ	AB		C	Fuse holder (MINI TYPE)
26	QPIN-6627RCZZ	AA		C	Pin
27	QS0CZ6428ACZZ	AE		C	IC socket (28pin)
28	RALMB2316RCZZ	AL		B	Buzzer (HMB-06)
29	RC-EZ688MRC1J	AQ	N	C	Capacitor
30	RCILC5003NCZZ	AG		C	Coil (SN-3S-200)
31	RCILC6633RCZZ	AL		C	Coil
32	RCRSP1003CCZZ	AT		B	Crystal (32KHz)
33	RCRSP6635RCZZ	AD	N	B	Crystal (4.91MG)
34	RMPTC4103QCKB	AC		B	Block resistor (10KΩ×4 1/8W ±10%)
35	RMPTC6103QCKB	AC		B	Block resistor (10KΩ×6 1/8W ±10%)
36	RMPTC7103QCKB	AD		B	Block resistor (10KΩ×7 1/8W ±10%)
37	RMPTC8103QCKB	AD		B	Block resistor (10KΩ×8 1/8W ±10%)
38	RTRNH6760RCZZ	AM	N	B	Converter transformer
39	UBATN2318RCZZ	AR		B	Battery
40	VCCCPU1HH100D	AA		C	Capacitor (50WV 10pF)
41	VCCCPU1HH200J	AB		C	Capacitor (50WV 20pF)
42	VCCCPU1HH330J	AB		C	Capacitor (50WV 33pF)
43	VCEAGU1CW106M	AA		C	Capacitor (16WV 10μF)
44	VCEAGU1CW108M	AD		C	Capacitor (16WV 1000μF)
45	VCEAGU1HW105M	AA		C	Capacitor (50WV 1.0μF)
46	VCEAGU1HW107M	AC		C	Capacitor (50WV 100μF)
47	VCEAGU1HW225M	AA		C	Capacitor (50WV 2.2μF)
48	VCEAGU1HW476M	AB		C	Capacitor (50WV 47μF)
49	VCEAGU1VW228M	AG		C	Capacitor (35WV 2200μF)
50	VCEAGU2AW106M	AB	N	C	Capacitor (100WV 10μF)
51	VCEAGU2AW226M	AB		C	Capacitor (100WV 22μF)
52	VCEAGU2AW336M	AC	N	C	Capacitor (100WV 33μF)
53	VCKYPU1HB101K	AA		C	Capacitor (50WV 100pF)
54	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)
55	VCKYPU1HB152K	AA		C	Capacitor (50WV 1500pF)
56	VCKYPU1HB561K	AA		C	Capacitor (50WV 560pF)
57	VCQYKU1HM103K	AB		C	Capacitor (50WV 0.01μF)
58	VCQYKU1HM473K	AB		C	Capacitor (50WV 0.047μF)
59	VCQYKU1HM683K	AB		C	Capacitor (50WV 0.068μF)
60	VCQYKU2AM103K	AC	N	C	Capacitor (100WV 0.010μF)
61	VCSAVA1CE685K	AD	N	C	Capacitor (16WV 6.8μF)
62	VCTYPU1NX104M	AB		C	Capacitor (12WV 0.10μF)
63	VHDDSS131HV-1	AA		B	Diode (DSS131HV)
64	VHDGSA30B// -1	AE		B	Diode (GSA30B)
65	VHDBRV401// -1	AG		B	Diode (RBV401)
66	VHDS1SM40V1A1	AD		B	Diode (S1SM40V1A1)
67	VHD1SS82// -1	AB		B	Diode (1SS82)
68	VHERD33EB4// -1	AB		B	Zener diode (RD33EB4)
69	VHERD4.3EL3-1	AB		B	Zener diode (RD4.3EL3)
70	VHERD6.2EB1-1	AB		B	Zener diode (RD6.2EB1)
71	VHERD6.8E// -1	AB		B	Zener diode (RD6.8E)
72	VHIHD61J214F1	AW		B	IC (HD61J214F1)
73	VHIHD63A03// -1	BB		B	IC (HD63A03)
74	VHILH5167P-55	AT	N	B	IC (LH5167P-55)
75	VHILZ92A42// -1	AN	N	B	IC (LZ92A42)
76	VHIM54567// -1	AL		B	IC (M54567)
77	VHINJM2903N-1	AH		B	IC (NJM2903N)
78	VHIPST518A// -1	AG		B	IC (PST518A)
79	VHIRP5C15// -1	AV		B	IC (RP5C15)
80	VHISLA4061// -1	AP	N	B	IC (SLA4061)

6 Main PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
81	VHISTR2024/-1	BM	N	B	IC (STR2024)
82	VHITC74HC00PN	AG		B	IC (TC74HC00PN)
83	VHITC74HC139P	AK		B	IC (TC74HC139P)
84	VHITD62503P-1	AG		B	IC (TD62503P)
85	VHITD62553S-1	AE		B	IC (TD62553S)
86	VHIT74LS14/-C	AG		B	IC (T74LS14)
87	VHIT74LS33/-C	AF		B	IC (T74LS33)
88	VHIT27256R131A	BG	N	B	IC (27256R131A)
	VHIT27256R132A	BG	N	B	IC (27256R132A)
89	VRD-RC2EY101J	AA		C	Resistor (1/4W 100Ω ±5%)
90	VRD-RC2EY102J	AA		C	Resistor (1/4W 1.0KΩ ±5%)
91	VRD-RC2EY103J	AA		C	Resistor (1/4W 10KΩ ±5%)
92	VRD-RC2EY104J	AA		C	Resistor (1/4W 100KΩ ±5%)
93	VRD-RC2EY122J	AA		C	Resistor (1/4W 1.2KΩ ±5%)
94	VRD-RC2EY153J	AA		C	Resistor (1/4W 15KΩ ±5%) (Except U.S.A.,CANADA)
95	VRD-RC2EY181J	AA		C	Resistor (1/4W 180Ω ±5%)
96	VRD-RC2EY183J	AA		C	Resistor (1/4W 18KΩ ±5%)
97	VRD-RC2EY220J	AA		C	Resistor (1/4W 22Ω ±5%)
98	VRD-RC2EY223J	AA		C	Resistor (1/4W 22KΩ ±5%) (Except U.S.A.,CANADA)
99	VRD-RC2EY221J	AA		C	Resistor (1/4W 220Ω ±5%)
100	VRD-RC2EY222J	AA		C	Resistor (1/4W 2.2KΩ ±5%)
101	VRD-RC2EY272J	AA		C	Resistor (1/4W 2.7KΩ ±5%)
102	VRD-RC2EY273J	AA		C	Resistor (1/4W 27KΩ ±5%)
103	VRD-RC2EY331J	AA		C	Resistor (1/4W 330Ω ±5%)
104	VRD-RC2EY332J	AA		C	Resistor (1/4W 3.3KΩ ±5%)
105	VRD-RC2EY333J	AA		C	Resistor (1/4W 33KΩ ±5%)
106	VRD-RC2EY334J	AA	N	C	Resistor (1/4W 330KΩ ±5%)
107	VRD-RC2EY392J	AA		C	Resistor (1/4W 3.9KΩ ±5%)
108	VRD-RC2EY432J	AA		C	Resistor (1/4W 4.3KΩ ±5%)
109	VRD-RC2EY470J	AA		C	Resistor (1/4W 47Ω ±5%)
110	VRD-RC2EY471J	AA		C	Resistor (1/4W 470Ω ±5%)
111	VRD-RC2EY472G	AA	N	C	Resistor (1/4W 4.7KΩ ±2%)
112	VRD-RC2EY472J	AA		C	Resistor (1/4W 4.7KΩ ±5%)
113	VRD-RC2EY473J	AA		C	Resistor (1/4W 47KΩ ±5%)
114	VRD-RC2EY561J	AA		C	Resistor (1/4W 560Ω ±5%)
115	VRD-RC2EY562J	AA		C	Resistor (1/4W 5.6KΩ ±5%)
116	VRD-RC2EY563J	AA		C	Resistor (1/4W 56KΩ ±5%)
117	VRD-RC2EY682J	AA		C	Resistor (1/4W 6.8KΩ ±5%)
118	VRD-RC2EY822G	AA		C	Resistor (1/4W 8.2KΩ ±2%)
119	VRD-RC2EY912G	AA	N	C	Resistor (1/4W 9.1KΩ ±2%)
120	VRS-ST3ABR68J	AA	N	C	Resistor (1W 0.68Ω ±5%)
121	VRS-ST3AB911J	AA		C	Resistor (1W 910Ω ±5%)
122	VSJA101-///-1	AB		B	Transistor (JA101)
123	VSJC501-///-1	AB		B	Transistor (JC501)
124	VS2SA673-///-1	AD		B	Transistor (2SA673)
125	VS2SB881-///-1	AH		B	Transistor (2SB881)
126	VS2SC3568-///-1	AK		B	Transistor (2SC3568)
127	VS2SD1191-///-1	AH		B	Transistor (2SD1191)
128	VS2SD667-///-1	AD		B	Transistor (2SD667)
129	XBPSD30P08K00	AA		C	Screw (3×8K)
130	XBPSD30P10KS0	AB		C	Screw (3×10KS)
131	XBPSD30P12KS0	AA		C	Screw (3×12KS)
132	XNESD30-24000	AA		C	Nut (3NS)
(Unit)					
901	CPWBF7041RC02	CG	N	E	Main PWB unit (U.S.A.,CANADA)
	CPWBF7041RC03	CG	N	E	Main PWB unit (Other countries)

7 Display PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LBNDJ0004UCZZ	AA		C	Cable band (TE10K)
2	PSPAY6674RCZZ	AC	N	C	Spacer for display tube
3	QCNCM6879RC01	AB	N	C	Connector (9pin)
4	QCNCM6879RC1A	AC	N	C	Connector (11pin)
5	QCNW-7017RCZZ	AN	N	C	Key cable
6	QCNW-7052RCZZ	AD	N	C	Connector (Main ↔ Display)
7	QCNW-7072RCZZ	AE	N	C	Earth wire (To switch angle)
8	RC-CZ1084CCZZ	AB		C	Capacitor (MFC H06D300)
9	RCRSP0006MCZZ	AD		B	Crystal (4MHz)
10	RMPTCB104QCJB	AD	N	B	Block resistor (100KΩ×12 1/8W ±5%)
11	RMPTC9104QCJB	AC	N	B	Block resistor (100KΩ×9 1/8W ±5%)
12	VCCCPU1HH330J	AB		C	Capacitor (50WV 33pF)
13	VCKYPU1HB102K	AA		C	Capacitor (50WV 1000pF)
14	VCSAVU1CE106M	AC		C	Capacitor (16WV 10μF)
15	VH1HD4042FB31	AX		B	IC (HD4042FB31)
16	VRD-RB2EY9R1J	AA		C	Resistor (1/4W 9.1Ω ±5%)

7 Display PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
17	VRD-RC2EY105J	AA		C	Resistor (1/4W 1.0MΩ ±5%)
18	VRD-RC2EY9R1J	AA	N	C	Resistor (1/4W 9.1Ω ±5%)
19	VVKFG1113RE11	BA	N	B	Display tube
	(Unit)				
901	CPWBF7042RC02	BR	N	E	Display PWB unit

8 RAM PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	QCNCM5080BC0C	AC		B	Connector (3pin)
2	QCNCM6802RC0B	AC		B	Connector (2pin)
3	QCNC-6905RC1F	AH	N	C	Connector (16pin)
4	QS0CZ6428ACZZ	AE		C	IC socket (28pin)
5	VCTYPUINX104M	AB		C	Capacitor (12WV 0.10μF)
6	VH1HM6264AL15	AW		B	IC (HM6264AL15)
7	VH1HM6264LP15	BN		B	IC (HM6264LP15)
8	VRD-RC2EY221J	AA		C	Resistor (1/4W 220Ω ±5%)
9	VRD-RC2EY563J	AA		C	Resistor (1/4W 56KΩ ±5%)
	(Unit)				
901	CPWBF7044RC02	BL	N	E	RAM PWB unit
	CPWBF7044RC01	BL	N	E	RAM PWB unit
					(U.S.A., CANADA)
					(Other countries)

9 Noise filter PWB unit(Except U.S.A.,CANADA)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LBNDJ0004UCZZ	AA		C	Cable band (TE10K)
2	QCNCW6720RC05	AG		C	Connector with wires (4pin)(Mode: → Noise filter)
3	QCNCW6915RC01	AE		C	Connector
4	QFS-C4081CCZZ	AF		A	Fuse (630mA 250V)
5	QFSHA1002CCZZ	AB		C	Holder, fuse (MINI TYPE)
6	QTANN6629RCZZ	AF		C	Block terminal
7	RCILC6575RCZZ	AN		C	Coil (for line filter)
8	RCILC6638RCZZ	AM		C	Coil
9	RTRNP6735RCZZ	AY		B	Power transformer
10	VCE9HE2EP104K	AK		C	Capacitor (250WV 0.1μF)
11	VRD-RB2HY394J	AA	N	C	Resistor (1/2W 390KΩ ±5%)
	(Unit)				
901	CPWBF7046RC05	BM	N	E	Noise filter PWB unit
	CPWBF7046RC04	BM	N	E	Noise filter PWB unit
	CPWBF7046RC02	BL	N	E	Noise filter PWB unit
					(KA)
					(KB)
					(TQ, TR, TS)

10 Customer display PWB unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LBNDJ0004UCZZ	AA		C	Cable band (TE10K)
2	QCNCW-7015RCZZ	AK	N	C	Pop-up cable 1
3	QCNCW-7016RCZZ	AH	N	C	Pop-up cable 2
4	VVKFG713RB1-1	BA	N	B	Display tube
5	CPWBF7043RCZZ	AD	N	C	Customer display PWB (Board only)
	(Unit)				
901	CPWBF7043RC01	BH	N	E	Customer display PWB unit

11 Articles of consumptions

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	DPAPR1006CSZZ	AR		S	Roll paper (5rolls/pack)
2	PRBN-2320RCZZ	AX	N	S	Ribbon cassette
3	UINK-1001CCZZ	AK		S	Ink (5cc)

12 Service options

[illegible]

13 AC CORD

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
△ 1	QACCJ1413QCZZ	AG		B	AC cord Japan, RA7, RA8, RA9, RB6, RB7, SA, SC, SD, SJ
△ 2	QACCD8411QCZZ	AN		B	AC cord U. S. A, Canada, Japan (Okinawa)
△ 3	QAGCE1422QCZZ	AM		B	AC cord RA1, RA2, RA4, RB1, RB3, RB5, RB9, SB, SG, TQ, TR, TS AC cord Yugoslavia
△ 4	QPLGA4501CCZZ	AK		B	Plug SE
△ 5	QCNW-6629RCZZ	AN		B	AC cord SE
△ 6	QPLGA0018WRE0	AN		B	Plug SH, RA5
△ 7	QCNW-6629RCZZ	AN		B	AC cord SH, RA5
△ 8	PHOG-1023CCZZ	AB		B	Bushing for AC cord SH, RA5
△ 9	QACCL7421QCZZ	AS		B	AC cord KA, SL
△ 10	QPLGA6626CCZZ	AN		B	Plug KB, RB2, RB8, SM, SMT
△ 11	QCNW-6629RCZZ	AN		B	AC cord KB, RB2, RB8, SM, SMT
△ 12	QACCZ6421QCZZ	AU		B	AC cord RA3
△ 13	QCNW-6629RCZZ	AN		B	AC cord RB4 (AC cord only. The plug is not included.)

Note : Instead of AC cords QACCZ3421QCZZ/QACCK1008CCZZ, the AC cord QACCE1422QCZZ(No.3) is supplied as service spare part.

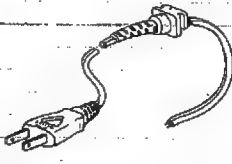

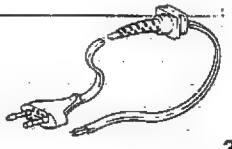
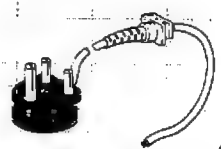
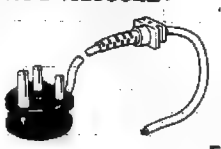
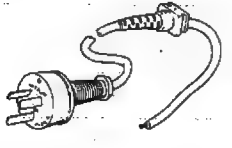
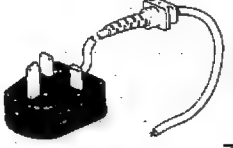
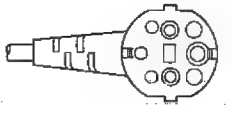
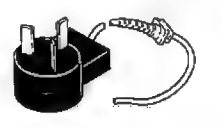
QACCJ1413QCZZ  1	QACCD8411QCZZ  2	QAGCE1422QCZZ  3	QCNW-6629RCZZ (QPLGA4501CCZZ)  4	QCNW-6629RCZZ (QPLGA0018WRE0 PHOG-1023CCZZ)  5
QACCL7421QCZZ  6	QCNW-6629RCZZ (QPLGA6626CCZZ)  7	QACCZ6421QCZZ  8	QCNW-6629RCZZ (The plug is not included.)  9	

Table of destinations

SELECTION CODE	COUNTRIES
KA	Australia
KB	U. Kingdom
SA	Korea
SB	Saudi Arabia
SBL	Saudi Arabia (Drawer TYPE:Large)
SBS	Saudi Arabia (Drawer TYPE:Small)
SC	Formosa
SD	R. of Colombia, Costa Rica, Dominican Republic, R. of Guatemala, Honduras, Venezuela, Nicaragua, El Salvador, Mexico, Cuba
SE	Hong Kong
* SG	Kuwait, Lebanon, Bahrain, Thailand, Indonesia (Drawer coin case 4B/3C), Tahiti, Pakistan, Iran, Syria, Turkey, Jordan, Iraq, U.A.R., Sultanate of Oman, Sudan
SH	South Africa
SJ	Philippines
SL	New Zealand
SM	Kenya, Malta, UAE
SMT	Nigeria
TQ	SEEG territory other than Germany (Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, France, Finland, Hungary, Iceland, Italy, Norway, France, Switzerland, Portugal, Netherlands, Poland, Romania, Sweden)
TR	Spain
TS	Germany
RA1	Tunisia, West Africa, Ivory coast, Algeria, Cameroon, Chad, Dahomey, Gabon, Congo, Togo, Senegal, Niger, Burkina Faso
RA2	Argentine Republic, R. of Paraguay
RA3	Greece
RA4	R. of Chile, R. of Uruguay
RA5	Sri Lanka
RA6	Egypt
RA7	Curacao, Guam, Netherlands Antilles
RA8	Liberia
RA9	R. of Peru
RB1	F. R. of Brazil
RB2	Barbados (220V) REFER TO RB7
* RB3	Indonesia (Drawer coin case 6B/5C)
RB4	
RB5	Cyprus
RB6	R. of Panama
RB7	Barbados (120V) REFER TO RB2
RB8	Malaysia, Singapore
RB9	China

Parts marked with "△" is important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

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PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
[C]					
CPWBF7041RC02	1- 22	CG	N	E	
//	6- 901	CG	N	E	
CPWBF7041RC03	1- 22	CG	N	E	
//	6- 901	CG	N	E	
CPWBF7042RC02	1- 43	BR	N	E	
//	7- 901	BR	N	E	
CPWBF7043RC01	1- 47	BH	N	E	
//	10- 901	BH	N	E	
CPWBF7044RC01	1- 12	BL	N	E	
//	8- 901	BL	N	E	
CPWBF7044RC02	1- 12	BL	N	E	
//	8- 901	BL	N	E	
CPWBF7046RC02	1- 8	BL	N	E	
//	9- 901	BL	N	E	
CPWBF7046RC04	1- 8	BM	N	E	
//	9- 901	BM	N	E	
CPWBF7046RC05	1- 8	BM	N	E	
//	9- 901	BM	N	E	
[D]					
DKIT-8226RCZZ	12- 1		N	E	
DKIT-8227RCZZ	12- 2		N	E	
DKIT-8322RCZZ	12- 4		N	E	
DKIT-8331RCZZ	12- 3		N	E	
DPAPR1006CSZZ	11- 1	AR		S	
DUNTK8196RCZZ	2- 501	BK		E	
DUNTK8237RCZZ	2- 901	BS	N	E	
DUNTK8313RCZZ	2- 901	BS	N	E	
[G]					
GBOXD6882RCZZ	5- 901	BS	N	E	
GBOXD6883RCZZ	5- 901	BS	N	E	
GBOXD6892RCZZ	4- 901	BT	N	E	
GBOXD6893RCZZ	5- 901	BS	N	E	
GBOXD6896RCZZ	4- 901	BT	N	E	
GCABA6919RCZZ	1- 25	BA	N	D	
GCABA6935RCZZ	1- 25	BA	N	D	
GCABB6917RCZZ	1- 1	AT	N	D	
GCABB6918RCZZ	1- 46	AH	N	D	
GCOVB6872RCZZ	12- 5		N	E	
GCOVB6873RCZZ	12- 7		N	D	
GCOVD6871RCZZ	3- 5	AP	N	D	
GCOVH6878RCZZ	1- 39	AR	N	D	
GFTAB6264RCN1	1- 62	AB	N	D	
GFTAF6709RCZZ	1- 24	AC	N	D	
GFTAS6710RCZZ	1- 27	AB	N	D	
GITAU6721RCZZ	1- 26	AM	N	D	
GITAU6723RCZZ	1- 67	AQ	N	D	
[H]					
HBDGD6817RCZZ	1- 40	AC	N	D	
HDECE6743RCZZ	1- 51	AH	N	D	
HDECE6744RCZZ	1- 50	AD	N	D	
HDECE6755RCZZ	1- 6	AH	N	D	
HPNLC6746RCZZ	1- 5	AG	N	D	
HPNLC6747RCZZ	1- 16	AG	N	C	
[K]					
KI-0B6706RCZZ	1- 32	CA	N	E	
[L]					
LANGK7227RCZZ	1- 42	AC	N	C	
LANGK7228RCZZ	1- 17	AG	N	C	
LANGK7229RCZZ	2- 7	AG	N	C	
LANGK7248RCZZ	2- 20	AC	N	C	
LANGI7246RCZZ	2- 19	AG	N	C	
LBNDJ0004UCZZ	1- 101	AA		C	
//	6- 1	AA		C	
//	7- 1	AA		C	
//	9- 1	AA		C	
//	10- 1	AA		C	
LBNDJ2003SCZZ	1- 102	AA		C	
LHLDW4081CCZZ	1- 70	AC		C	
LHLDW5034BCZZ	1- 4	AB		C	
LKGI M6784RCZZ	1- 61	AD		B	
//	3- 7	AD		B	
LKGI M7110RCZZ	2- 4	AG	N	B	
//	3- 1	AG	N	B	
LKGI M7111RCZZ	2- 4	AG	N	B	
//	3- 1	AG	N	B	
LKGI M7113RCZZ	3- 107	AK	N	B	
LKGI M7126RCZZ	12- 6		N	B	
LKGI M7129RCZZ	2- 4	AE	N	B	
//	3- 1	AE	N	B	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
LKGIW7108RCZZ	1- 60	AK	N	B	
LKGIW7130RCZZ	2- 21	AK	N	B	
LKGIW7132RCZZ	2- 12	AK	N	B	
LX-BZ1007CCZZ	1- 31	AB		C	
[M]					
MSPRK6660RCZZ	1- 59	AC		C	
[P]					
PCUS-4101CCZZ	1- 30	AB		C	
PCUSS6720RCZZ	1- 65	AK	N	C	
PCUSS6721RCZZ	1- 66	AK	N	C	
PCUSS6722RCZZ	2- 22	AK	N	C	
PCUSS6723RCZZ	1- 64	AK	N	C	
PCUSS6724RCZZ	1- 63	AK	N	C	
PCUT-1027CCZZ	1- 38	AC		C	
PFI LW6714RCZZ	1- 37	AD		D	
PFI LW6797RCZZ	1- 48	AM	N	D	
PFI LW6798RCZZ	1- 3	AM	N	D	
PFI LW6812RCZZ	1- 3	AK	N	D	
PFI LW6813RCZZ	1- 48	AH	N	D	
PRBN-2320RCZZ	1- 34	AX	N	S	
//	11- 2	AX	N	S	
PRDAF6639RCZZ	6- 2	AF	N	C	
PSHEZ6687RCZZ	2- 1	AW	N	C	
PSHEZ6688RCZZ	2- 3	AQ	N	C	
PSHEZ6697RCZZ	2- 2	AH	N	C	
PSHEZ6698RCZZ	3- 10	AC	N	C	
PSHEZ6700RCZZ	3- 9	AD	N	C	
PSHEZ6710RCZZ	2- 2	AK	N	C	
PSHEZ6711RCZZ	3- 10	AD	N	C	
PSPAY6674RCZZ	7- 2	AC	N	C	
PSTM-6658RC01	1- 33	AR	N	C	
PSTM-6660RC01	1- 33	AR	N	C	
PSTM-6662RC01	1- 33	AR	N	C	
[Q]					
QCNC-6905RC1F	6- 13	AH	N	C	
//	8- 3	AH	N	C	
QCNCM1101CCZZ	6- 3	AB		B	
QCNCM5080BC0C	6- 4	AC		B	
//	8- 1	AC		B	
QCNCM6802RC0B	8- 2	AC		B	
QCNCM6821RC0C	6- 5	AC		B	
QCNCM6862RC0B	6- 6	AB		B	
QCNCM6865RC0E	6- 7	AB		C	
QCNCM6865RC1A	6- 8	AD		C	
QCNCM6865RC1J	6- 9	AC		C	
QCNCM6879RC0i	7- 3	AB	N	C	
QCNCM6879RC1A	7- 4	AC	N	C	
QCNCM6879RC1C	6- 10	AC	N	C	
QCNCW6720RC05	1- 9	AG		C	
//	9- 2	AG		C	
QCNCW6730RC05	6- 11	AF		B	
QCNCW6887RC0B	6- 12	AB		B	
QCNCW6915RC01	1- 10	AE		C	
//	9- 3	AE		C	
QCNCW-7013RCZZ	1- 21	AN	N	C	
//	6- 14	AN	N	C	
QCNCW-7013RC01	1- 21	AM	N	C	
//	6- 15	AM	N	C	
QCNCW-7014RCZZ	1- 23	AH	N	C	
//	6- 16	AH	N	C	
QCNCW-7015RCZZ	1- 44	AK	N	C	
//	10- 2	AK	N	C	
QCNCW-7016RCZZ	1- 45	AH	N	C	
//	10- 3	AH	N	C	
QCNCW-7017RCZZ	1- 41	AN	N	C	
//	7- 5	AN	N	C	
QCNCW-7018RCZZ	1- 13	AL	N	C	
QCNCW-7031RCZZ	1- 56	AD	N	C	
QCNCW-7032RCZZ	1- 53	AD	N	C	
QCNCW-7035RCZZ	1- 68	AD	N	C	
//	1- 79	AD	N	C	
QCNCW-7036RCZZ	1- 54	AD	N	C	
QCNCW-7037RCZZ	1- 55	AA	N	C	
QCNCW-7039RCZZ	1- 69	AB	N	C	
QCNCW-7045RCZZ	6- 17	AE	N	C	
QCNCW-7046RCZZ	6- 18	AE	N	C	
QCNCW-7048RCZZ	1- 49	AD	N	C	
//	4- 58	AD	N	C	
//	5- 57	AD	N	C	
QCNCW-7049RCZZ	1- 29	AD	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
QCNW-7050RCZZ	1- 19	AD	N	C
"	2- 8	AD	N	C
QCNW-7052RCZZ	1- 11	AD	N	C
"	7- 6	AD	N	C
QCNW-7071RCZZ	1- 81	AE	N	C
"	6- 19	AE	N	C
QCNW-7072RCZZ	2- 24	AE	N	C
"	7- 7	AE	N	C
QFS-A0301QCZZ	6- 20	AC		A
QFS-A3089KCZZ	6- 22	AC		A
QFS-B0301QCZZ	6- 21	AE		A
QFS-C2521TAZZ	6- 23	AE		A
QFS-C4081CCZZ	6- 24	AF		A
"	9- 4	AF		A
QFSHA1002CCZZ	6- 25	AB		C
"	9- 5	AB		C
QPIN-6627RCZZ	6- 26	AA		C
QPWBF7043RCZZ	10- 5	AD	N	C
QSOCZ6428ACZZ	6- 27	AE		C
"	8- 4	AE		C
QSW-Z6773RCZZ	2- 13	AN	N	B
QSW-Z6774RCZZ	2- 11	AU	N	B
QTANN6629RCZZ	1- 77	AF		C
"	9- 6	AF		C
QTANP0004HCZZ	1- 71	AB		C
"	1- 80	AB		C
QTANP1094CCZZ	1- 57	AA		C
[R]				
RALMB2316RCZZ	6- 28	AL		B
RC-CZ1084CCZZ	7- 8	AB		C
RC-EZ688MRC1J	6- 29	AQ	N	C
RCILC5003NCZZ	6- 30	AG		C
RCILC6575RCZZ	9- 7	AN		C
RCILC6633RCZZ	6- 31	AL		C
RCILC6638RCZZ	9- 8	AM		C
RCORF6627RCZZ	1- 78	AK		C
RCORF6629RCZZ	1- 75	AQ		C
RCRSP0006MCZZ	7- 9	AD		B
RCRSP1003CCZZ	6- 32	AT		B
RCRSP6635RCZZ	6- 33	AD	N	B
RFILN6001RCZZ	1- 52	AT	N	B
RMPTCB104QCJB	7- 10	AD	N	B
RMPTC4103QCKB	6- 34	AC		B
RMPTC6103QCKB	6- 35	AC		B
RMPTC7103QCKB	6- 36	AD		B
RMPTC8103QCKB	6- 37	AD		B
RMPTC9104QCJB	7- 11	AC	N	B
RTRNH6760RCZZ	6- 38	AM	N	B
RTRNP6735RCZZ	9- 9	AY		B
RTRNP6763RCZZ	1- 58	AY	N	B
[S]				
SPAKA7578RCZZ	3- 13	AP	N	D
SPAKA7579RCZZ	3- 15	AP	N	D
SPAKC7556RCZZ	3- 17	AR	N	D
SSAKA0001SCZZ	3- 3	AA		D
SSAKA2012KCZZ	3- 14	AF		D
SSAKA5004CCZZ	3- 12	AA		D
SSAKH3015CCZZ	3- 11	AA		D
[T]				
TCADH6653RCZZ	3- 102	AB		D
TCADH6654RCZZ	3- 102	AB		D
TCAUS1003RCZZ	3- 103	AC		D
TCAUS1053CCZZ	3- 104	AC		D
TCAUS1054CCZZ	3- 105	AB		D
TINSE7006RCZZ	3- 6	AX	N	D
TINSE7024RCZZ	3- 6	AX	N	D
"	3- 6	AX	N	D
TINSF7025RCZZ	3- 6	AX	N	D
TINSF7026RCZZ	3- 6	AX	N	D
TINSK7032RCZZ	3- 6	BB	N	D
TINSS7027RCZZ	3- 6	AX	N	D
TLAB-4681CCZZ	3- 106	AA		C
[U]				
UBATN2318RCZZ	6- 39	AR		B
UBNDA1008CCZZ	3- 101	AA		C
UINK-1001CCZZ	3- 4	AK		S
"	11- 3	AK		S
[V]				
VCCCPU1HH100D	6- 40	AA		C
VCCCPU1HH200J	6- 41	AB		C

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
VCCCPU1HH330J	6- 42	AB		C
"	7- 12	AB		C
VCEAGU1CW106M	6- 43	AA		C
VCEAGU1CW108M	6- 44	AD		C
VCEAGU1HW105M	6- 45	AA		C
VCEAGU1HW107M	6- 46	AC		C
VCEAGU1HW225M	6- 47	AA		C
VCEAGU1HW476M	6- 48	AB		C
VCEAGU1VW228M	6- 49	AG		C
VCEAGU2AW106M	6- 50	AB	N	C
VCEAGU2AW226M	6- 51	AB		C
VCEAGU2AW336M	6- 52	AC	N	C
VCE9HE2EP104K	9- 10	AK		C
VCKYPU1HB101K	6- 53	AA		C
VCKYPU1HB102K	6- 54	AA		C
"	7- 13	AA		C
VCKYPU1HB152K	6- 55	AA		C
VCKYPU1HB561K	6- 56	AA		C
VCQYKUTHM103K	6- 57	AB		C
VCQYKU1HM473K	6- 58	AB		C
VCQYKU1HM683K	6- 59	AB		C
VCQYKU2AM103K	6- 60	AC	N	C
VCSAVA1CE685K	6- 61	AD	N	C
VCSAVU1CE106M	7- 14	AC		C
VCTYPU1NX104M	6- 62	AB		C
"	8- 5	AB		C
VHDDSS131HV-1	6- 63	AA		B
VHDGSA30B//--1	6- 64	AE		B
VHDBRV401//--1	6- 65	AG		B
VHDSISM40V1A1	6- 66	AD		B
VHD1SS82//--1	6- 67	AB		B
VHERD33EB4//--1	6- 68	AB		B
VHERD4.3EL3-1	6- 69	AB		B
VHERD6.2EB1-1	6- 70	AB		B
VHERD6.8E//--1	6- 71	AB		B
VH1HD4042FB31	7- 15	AX		B
VH1HD61J214F1	6- 72	AW		B
VH1HD63A03//--1	6- 73	BB		B
VH1HM6264AL15	8- 6	AW		B
VH1HM6264LP15	8- 7	BN		B
VH1LH5167P-55	6- 74	AT	N	B
VH1LZ92A42//--1	6- 75	AN	N	B
VH1M54567//--1	6- 76	AL		B
VH1NJM2903N-1	6- 77	AH		B
VH1PST518A//--1	6- 78	AG		B
VH1RP5C15//--1	6- 79	AV		B
VH1SLA4061//--1	6- 80	AP	N	B
VH1STR2024//--1	6- 81	BM	N	B
VH1TC74HC00PN	6- 82	AG		B
VH1TC74HC139P	6- 83	AK		B
VH1TD62503P-1	6- 84	AG		B
VH1TD62553S-1	6- 85	AE		B
VH1T74LS14/-C	6- 86	AG		B
VH1T74LS33/-C	6- 87	AF		B
VH127256R131A	6- 88	BG	N	B
VH127256R132A	6- 88	BG	N	B
VRD-RB2EY9R1J	7- 16	AA		C
VRD-RB2HY394J	9- 11	AA	N	C
VRD-RC2EY101J	6- 89	AA		C
VRD-RC2EY102J	6- 90	AA		C
VRD-RC2EY103J	6- 91	AA		C
VRD-RC2EY104J	6- 92	AA		C
VRD-RC2EY105J	7- 17	AA		C
VRD-RC2EY122J	6- 93	AA		C
VRD-RC2EY153J	6- 94	AA		C
VRD-RC2EY181J	6- 95	AA		C
VRD-RC2EY183J	6- 96	AA		C
VRD-RC2EY220J	6- 97	AA		C
VRD-RC2EY221J	6- 99	AA		C
"	8- 8	AA		C
VRD-RC2EY222J	6- 100	AA		C
VRD-RC2EY223J	6- 98	AA		C
VRD-RC2EY272J	6- 101	AA		C
VRD-RC2EY273J	6- 102	AA		C
VRD-RC2EY331J	6- 103	AA		C
VRD-RC2EY332J	6- 104	AA		C
VRD-RC2EY333J	6- 105	AA		C
VRD-RC2EY334J	6- 106	AA	N	C
VRD-RC2EY392J	6- 107	AA		C
VRD-RC2EY432J	6- 108	AA		C

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
VRD-RC2EY470J	6- 109	AA		C
VRD-RC2EY471J	6- 110	AA		C
VRD-RC2EY472G	6- 111	AA	N	C
VRD-RC2EY472J	6- 112	AA		C
VRD-RC2EY473J	6- 113	AA		C
VRD-RC2EY561J	6- 114	AA		C
VRD-RC2EY562J	6- 115	AA		C
VRD-RC2EY563J	6- 116	AA		C
"	8- 9	AA		C
VRD-RC2EY682J	6- 117	AA		C
VRD-RC2EY822G	6- 118	AA		C
VRD-RC2EY9R1J	7- 18	AA	N	C
VRD-RC2EY912G	6- 119	AA	N	C
VRS-ST3ABR68J	6- 120	AA	N	C
VRS-ST3AB911J	6- 121	AA		C
VSJA101-///-1	6- 122	AB		B
VSJC501-///-1	6- 123	AB		B
VS2SA673-///-1	6- 124	AD		B
VS2SB881-///-1	6- 125	AH		B
VS2SC3568-///-1	6- 126	AK		B
VS2SD1191-///-1	6- 127	AH		B
VS2SD667-///-1	6- 128	AD		B
VVKFG1113RE11	7- 19	BA	N	B
VVKFG713RB1-1	10- 4	BA	N	B
【X】				
XBBSC30P10000	1- 2	AA		C
XBPBZ40P06K00	1- 72	AA		C
XBPSD20P04000	2- 9	AA		C
XBPSD30P06K00	1- 18	AA		C
"	2- 6	AA		C
XBPSD30P06K00	2- 5	AA		C
XBPSD30P08K00	1- 76	AA		C
XBPSD30P08K00	6- 129	AA		C
XBPSD30P10K00	6- 130	AB		C
XBPSD30P12K00	6- 131	AA		C
XBPSD40P06K00	1- 7	AA		C
XBPSD40P08K00	1- 73	AA		C
XNESD30-24000	1- 15	AA		C
"	6- 132	AA		C
XUBSD30P06000	1- 28	AA		C
XUBSD30P08000	1- 14	AA		C
"	2- 17	AA		C
XUPSD20P04000	1- 35	AA		C
XUPSD30P06000	2- 10	AA		C
XUPSD30P14000	1- 74	AA		C
XUSSD30P06000	2- 23	AA		C
XUSSD30P08000	2- 26	AA	N	C
XWHS020-04060	1- 36	AA		C
XWSPN30-07000	2- 25	AA		C
【O】				
OAGCCP61448S1	4- 51	BB		E
OAGCCP6156500	5- 501	BD		C
OAGDC60A-010S	5- 40	AP		B
OAGGCM144S460	5- 5	BF	N	D
OAGGCM148S460	4- 14	BF	N	D
OAGGCP613MKSS	5- 42	AY		D
OAGGCP614MKSS	4- 44	AY		D
"	5- 44	AY		D
OAGGCP615MKSS	5- 48	AX		C
OAGGDW444S460	5- 38	AZ	N	D
OAGGDW445S460	4- 43	AZ	N	C
OAGGIU143S460	4- 42	AS	N	C
"	5- 37	AS	N	C
OAGGLG800K230	4- 33	AB		C
"	5- 30	AB		C
OAGGLG801MKSS	4- 40	AB		C
"	5- 35	AB		C
OAGGLG8022017	4- 33	AB		C
"	5- 30	AB		C
OAGGSP600MKSS	4- 45	AF		C
"	5- 47	AF		C
OAGKSA168101S	4- 10	AL		B
OAGLBC601MKSS	4- 49	AL		C
"	5- 46	AL		C
OAGLBC609MKSS	5- 49	AH		C
OAGLBC610MKSS	5- 50	AM		C
OAGLBC612MKSS	5- 54	AD		C
OAGLBC614MKSS	5- 22	AK		C
OAGLBC615MKSS	5- 28	AF		C
OAGLCS201MKSS	4- 25	AH		C

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK
OAGLCS201MKSS	5- 17	AH		C
OAGLDW200MKSS	4- 54	AD		C
"	5- 3	AD		C
OAGLKMD60A01	3- 2	AH		B
"	5- 41	AH		B
OAGLKMKSA1680	3- 2	AF		B
"	4- 9	AF		B
OAGLSG200MKSS	4- 15	AB		C
"	5- 7	AB		C
OAGLXZ800M4SP	4- 27	AA		C
"	5- 29	AA		C
OAGLXZ801M6SP	4- 38	AA		C
"	5- 33	AA		C
OAGMAM202MKSS	4- 2	AD		C
OAGMKS212MKSS	4- 22	AK		C
"	5- 14	AK		C
OAGMKS243MKSS	4- 22	AM		C
"	5- 14	AM		C
OAGMLF201MKSS	4- 57	AB		C
"	5- 20	AB		C
OAGMLF206MKSS	4- 17	AB		C
"	5- 12	AB		C
OAGMLF220MKSS	5- 12	AB		C
OAGMLV600MKSS	4- 47	AD		C
"	5- 24	AD		C
OAGMLV602MKSS	5- 51	AD		C
OAGMLV606MKSS	5- 53	AK		C
OAGMLV607MKSS	5- 52	AK		C
OAGMSK800MKSS	4- 11	AC		C
OAGMSK801MKSS	5- 39	AE		C
OAGMST200MKSS	4- 3	AB		C
OAGMST600MKSB	4- 48	AB		C
"	5- 23	AB		C
OAGMST604MKSB	5- 55	AB		C
OAGMST800MKSB	4- 7	AB		C
"	5- 16	AB		C
OAGMST800MKSS	4- 24	AB		C
OAGMST805460A	4- 34	AD		C
"	5- 31	AD		C
OAGMST809MKSB	4- 56	AB		C
"	5- 19	AB		C
OAGNRP22B1L00	4- 13	AE		C
"	5- 6	AE		C
OAGPSP200MKSS	4- 30	AB		C
"	5- 10	AB		C
OAGPSR600MKSS	4- 46	AE		C
"	5- 45	AE		C
OAGPSR601MKSS	5- 25	AF		C
OAGQCW208MKSS	4- 20	AB		C
"	5- 43	AB		C
OAGQCW218MKSS	1- 20	AL		B
"	5- 4	AL		B
OAGQCW221MKSS	1- 20	AL	N	B
"	4- 4	AL	N	B
"	5- 4	AL	N	B
OAGQSW200MKSS	4- 21	AL		B
"	5- 9	AL		B
OAGRAL201MKSS	4- 31	AD		C
"	5- 27	AD		C
OAGRLU205MKSS	4- 18	AQ		B
"	5- 13	AQ		B
OAGRLU210MKSS	5- 13	AQ		B
OAGWiR200MKSS	4- 6	AK		C
OAGXBD20038C1	4- 53	AA		C
"	5- 1	AA		C
OAGXBD200415P	4- 41	AA		C
"	5- 36	AA		C
OAGXBD201306X	4- 23	AA		C
"	5- 15	AA		C
OAGXBD202314X	4- 19	AA		C
"	5- 8	AA		C
OAGXBD801408W	4- 32	AA		C
"	5- 26	AA		C
OAGXBD803315S	4- 35	AA		C
"	5- 32	AA		C
OAGXBD804306B	4- 50	AA		C
"	5- 21	AA		C
OAGXBD805304N	5- 56	AA		C
OAGXBD806406N	4- 55	AA		C
"	5- 18	AA		C

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SHARP CORPORATION
Information Systems Group
Quality & Reliability Control Center
Yamatokoriyama, Nara 639-11, Japan
February 1987 Printed in Japan